

The new Gielow designed diesel yacht, Savarona, largest pleasure craft in the world at the start of the ocean race to Spain recently. Mr. and Mrs. Cadwalader of Philadelphia and guests were aboard

OCTOBER, 1928

Vol. XLII, No. 4

MOTOR BOATING

FIFTY-SEVENTH STREET
AT EIGHTH AVENUE
NEW YORK, N. Y.

Edited by

CHARLES F. CHAPMAN

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COMING EVENTS

October 5, 6—National Outboard Regatta, Wilmington, N. C. A. P. B. A. Rules.
October 25—Annual Meeting of the American Power Boat Association at the Hotel Waldorf Astoria, New York City.
December 15, 16—National Championship races, San Diego, California.
January 17-26—Motor Boat Show, Grand Central Palace, New York City.
March 22, 23—Miami Beach Regatta, Miami Beach, Florida.

Published monthly by the INTERNATIONAL MAGAZINE COMPANY, INC., at 57th Street, at Eighth Avenue, New York City.

RAY LONG
President

THOMAS J. WHITE
Vice-President

ARTHUR S. MOORE
Treasurer

AUSTIN W. CLARK
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Single copies, per issue, Thirty-five cents. Yearly subscription in the United States and Canada, \$3.00. In foreign countries, \$4.00. When you receive notice that your subscription has expired it is best to renew it at once, using the blank enclosed. When changing an address, give the old address as well as the new and allow five weeks for the first copy to reach you. Copyright, 1928, International Magazine Company, Inc. Motor Boating is fully protected by copyright and nothing that appears in it may be reprinted wholly or in part without permission.

With Our Marine Architects

Some of Their New Craft

H. J. GIELOW, INC.

Sea Sales III—87 feet, owned by Murray W. Sales, powered with a 6 cyl. Bessemer diesel, built by Defoe Boat & Motor Works.

Old River—130 feet, owned by W. H. Vander Poel, built by Fogal Boat Yard.

Camargo—225 feet, owned by Julius Fleischmann, powered with two 6 cyl. Bessemer diesels, built by Geo. Lawley & Son.

Vanda—240 feet, owned by Ernest B. Dane, powered with two 8 cyl. Bessemer diesels, built by Bath Iron Works.

NEW YORK YACHT LAUNCH AND ENGINE CO.

Nayada—70 feet, owned by C. M. Greiner, powered with two 4 cyl. 20th Century, built by N. Y. Yacht Launch and Engine Co.

Nemea—77 feet, owned by Lamot Du Pont, powered with two 6 cyl. Wintons, built by N. Y. Yacht Launch and Engine Co.

Domino III—85 feet, owned by A. G. Southworth, powered with two 6 cyl. 20th Century, built by N. Y. Yacht Launch and Engine Co.

Harbinger—85 feet, owned by R. H. McCurdy, powered with two 6 cyl. 20th Century, built by N. Y. Yacht Launch and Engine Co.

Wahoo—85 feet, owned by R. R. M. Carpenter, powered with two 6 cyl. 20th Century, built by N. Y. Yacht Launch and Engine Co.

HENRY C. GREBE & CO.

Margo—98 feet, owned by V. A. Massee, powered with two 200 h.p. Winton diesels, built by Great Lakes Boatbuilding Corp.

137-foot diesel engined yacht under construction. Four 62-foot cruisers now under construction

ELDRIDGE-McINNIS, INC.

Marilyn—48 feet, owned by C. V. Sawyer, powered with a 100 h.p. Murray & Tregurtha, built by F. S. Nock.

Ballkin—75 feet, owned by Geo. B. Kimball, powered with two 6 cyl. Wintons, built by F. D. Lawley, Inc.

Seyon—75 feet, owned by H. K. Noyes, powered with two 6 cyl. Wintons, built by F. D. Lawley, Inc.

Paladin—86 feet, owned by Henry A. Moss, powered with two 6 cyl. Wintons, built by Geo. Lawley & Son.

Cyril II—90 feet, owned by Robt. C. Morse, powered with two 6 cyl. Wintons, built by Geo. Lawley & Son.

TAMS & KING, INC.

Whim III—56 feet, owned by Harrison Williams, powered with two 12 cylinder Wright-Typhoons, built by Consolidated Shipbuilding Corp.

Klahanee—106 feet, owned by L. M. Wainwright, powered with two Speedway diesels, built by Consolidated Shipbuilding Corp.

JOHN H. WELLS, INC.

Cigarette—75 feet, owned by L. Gordon Hamersley, powered with two 8 cyl. Wintons, built by Henry B. Nevins.

Frances S. III—75 feet, owned by P. W. Seiler, powered with two 6 cylinder Sterlings, built by Chance Marine Construction Co.

Frolic III—75 feet, owned by Walter P. Chrysler, powered with two 8 cyl. Wintons, built by Mathis Yacht Building Co.

Korana—75 feet, owned by F. B. Hower, powered with two 6 cyl. Sterlings, built by Chance Marine Construction Co.

Lura M IV—106 feet, owned by Wm. A. Fisher, powered with two 8 cyl. Wintons, built by Jacobs.

Margaret F. III—106 feet, owned by Lawrence P. Fisher, powered with two 8 cyl. Wintons, built by Jacobs.

CONSOLIDATED SHIPBUILDING CORPORATION

Babs—50 feet, owned by T. C. Henry, powered with a 6 cyl. Speedway, built by Consolidated.

Delta—62 feet, owned by Paul H. Deming, powered with two 6 cyl. Speedways, built by Consolidated.

Julie M II—62 feet, owned by R. M. Smith, powered with two 6 cyl. Speedways, built by Consolidated.

Ripogenus—64 feet, owned by R. L. Skofield, powered with two 6 cyl. Speedways, built by Consolidated.

Tranquille II—68 feet, owned by Richard Hellmann, powered with two 6 cyl. Speedways, built by Consolidated.

Pleiades—82 feet, owned by J. Lester Parsons, powered with two 6 cyl. Speedways, built by Consolidated.

Helena—95 feet, owned by C. E. F. McCann, powered with two 6 cyl. Speedways, built by Consolidated.

B. T. DOBSON

Colleen—150 feet, owned by S. A. Salvage, powered with two 6-cyl. Winton Diesels, built by Pusey & Jones.

J. MURRAY WATTS

Tomboy, Jr.—32 feet, owned by Thomas B. Gibb, powered with 150 h.p. Sterling, built by Lower Bank Yacht Works.

Charlotte II—35 feet, owned by Percy Heinemann, powered with a 150 h.p. Kermath, built by Lower Bank Yacht Works.

Rex II—46 feet, owned by C. P. Reckner, powered with two 200 h.p. Lathrop, built by Fred Zimmerer.

Alfreda—51 feet, owned by G. Barfuss, powered with two 100 h.p. Continentals, built by Dunnellen Machine Works.

Asatamia—54 feet, owned by J. Zura, powered with two 150 h.p. Kermaths, built by Vinyard Shipbuilding Co.

THOMAS D. BOWES

Waleda II—130 feet, owned by Walter H. Lippincott, powered with diesel engines.

Memory III—142 feet, owned by A. E. Fitkin, powered with a Bessemer diesel, built by Defoe Boat and Motor Works.

COX & STEVENS

218 foot diesel yacht, total horsepower 1500, speed 14 knots.

170 foot diesel yacht of cruiser type, 900 h.p. diesel engines.

181 foot diesel yacht, 1200 h.p. engines, cruiser type, speed 13 knots.

Names, owners, and further particulars not available at present.

CHARLES D. MOWER

Alert IV—40 feet, owned by C. D. Wyman and built by H. B. Nevins, Inc. Red Feather II—47 feet, owned by E. T. Affleck, powered with two 6-cyl. Sterlings, built by Herman Lund.

WILLIAM H. HAND, JR.

Cachalot—85 feet, aux. kch., owned by A. L. Foster, powered with 6-cyl. Winton Diesel, built by J. D. Morse.

Mistral—45 feet, aux. ywl., owned by Henry A. Ross, powered with 4-cyl. Scripps, built by Reed-Cook Company.

JOHN G. ALDEN

Spindrift—54 feet, aux. kch., owned by Charles Higginson, powered with 4-cyl. Scripps, built by F. F. Pendleton.

Malabar IX—57 feet, aux. sch., powered with 4-cyl. Frisbie, built by Hodgdon Bros.

Madoc—45 feet, aux. sch., owned by Russell Robb, Jr., powered with 4-cyl. Scripps, built by Harvey Gammage.

Altair—43 feet, aux. sch., owned by J. L. Merrill, powered with 4-cyl. Scripps, built by Goudy & Stevens.

THE knowledge that Tebo Yacht* Basin has full facilities for completing repair, conversion, overhaul and reconditioning operations within this one plant assures owners of yachts a one point contact that admits of no annoyances or delays in finishing a job within the contractual, or agreed, time.



This organization has long been permitted to serve the most distinguished clientele on the Atlantic seaboard. Convenient owner supervision within 15 minutes of lower Manhattan.



TODD DRY DOCK ENGINEERING & REPAIR CORPORATION
Foot of 23rd Street, Brooklyn, New York



TEBO

YACHT BASIN

Mention MoToR Boating, 57th St. at Eighth Ave., New York

Navigation and Piloting Hints

WHEN people drive their automobiles it seems to be most natural for them to follow the rules of the road, and keep to the right so as to pass opposing traffic in the proper way. When these same people attempt to drive a motor boat they seem to lose their sense of direction and flounder about uncertainly without knowing just what is the correct thing to do. In order to handle a boat correctly there are a few simple rules which should be mastered so that the routine of handling the boat becomes second nature and more or less instinctive, in just the same way that a good motor driver weaves his car in and out of the traffic.

RULES APPLY TO ALL BOATS

There are no exceptions to the rules of the road as far as boats are concerned. Every boat which is under way is subject to these rules and it is only when a vessel is at anchor, aground or tied to a wharf, that is not obliged to observe them. Another condition is that the rules apply to boats whether they are going ahead or astern. The distinction in this case is that for the time being the stern of a boat which is moving astern is considered to be the bow, and the rules apply in just exactly the same way as if the boat were going ahead. All boats driven by steam, motor, or sail, of whatever kind must obey the rules.

SOME VESSELS PRIVILEGED

Boats can under ordinary circumstances maneuver freely, and where there is sufficient room can avoid each other without difficulty. Since the rules are intended more particularly to prevent collisions, one of the two vessels in any situation where they are close together is given the right of way. This vessel is called the privileged vessel while the other one, which is the one which must give way is called the burdened vessel: It is one of the strong features of the rules that the privileged vessel must hold her course and speed while the other or burdened vessel must use all available means to keep clear.

Sometimes situations will develop in which the danger of a collision will continue to exist in spite of all efforts on the part of a burdened vessel to prevent. In such a situation the rules have a further paragraph which makes it permissible to depart from the rules to avoid danger and also another provision which says in effect, that where a collision cannot be avoided by the burdened vessel alone the privileged vessel must take such action as will best aid to avert a collision.

MASTER RESPONSIBLE

Small motor boats of modern construction are much more easily maneuvered than the large heavy commercial boats. While this does not mean that the motor boats must give way at all times to the larger vessels, it is ever so much easier for the small boat to maneuver out of the way of the larger one without effort, so that it is always desirable for the small boat operator to have some consideration for the master of the large vessel and make his labors as easy as possible. In crowded harbors it is not always possible to give way and in such places it is the duty of all to operate their boats with care and proper discretion. In cases of collision it is a first duty to stand by to render all aid to the injured vessel.

SIMPLEST RULE, KEEP RIGHT

The essence of practically all motor boat rules of the road is the simple requirement to keep to the right. Another particularly good rule is one which requires that speeds at all times should be reasonable for the time, place and conditions existing. Excessive speed has indirectly caused damage and accident by reason of the heavy swells set up by a rapidly moving boat. Generally a reasonable speed can be considered to be such that it will be possible for the boat to stop and go astern when danger appears.

SIGNALS INDICATE ACTION

Boats being naturally much more cumbersome and acted upon not only by the effort of their machinery, but also by the wind and sea, give signals from one to another so that the masters may know what the other proposes to do. These signals are given on a whistle which is operated by mechanical means, either steam, air, or electricity in such a way as to permit the signal to be readily heard at a great distance. It is essential that signals be understood and answered promptly. A whistle signal may be interpreted to mean "I intend to pass you on one side or another, depending entirely upon the nature of the signal, one or two long blasts, signifying the intended direction. It is also advisable when making a signal to swing the ship's head slightly in the intended direction so that the other skipper can see as well as hear what your contemplated action is to be. Any failure to respond promptly to properly given whistle signals will render the offender subject to a penalty if he is reported for the offense.

NEW INSIDE ROUTE OPENS

The inland waterway between Norfolk, Virginia, and Beaufort Inlet, North

Carolina, has recently been opened to navigation between Norfolk and the Pamlico River through the Alligator River. This new cut is twenty two miles in length from Alligator River to Wilkerson Creek, following thence through the Pungo River to the Pamlico River. At the present time the available depth at mean low water through this route is nine and one half feet which occurs at several places in the Alligator River.

The entrance to this new Alligator Pungo River Cut is shown at its northern end on Coast and Geodetic Survey Chart No. 1228. At the southern end the entrance is in Wilkerson Creek where it empties into the Pungo River. This point is eight and three quarter miles east of Belhaven, North Carolina, and shown on Chart No. 1231. The aids to navigation along this route are as shown on the charts, and additional aids to navigation are being established by the U. S. Lighthouse Service as time and facilities permit.

This route passes under two bridges one of which is a highway bridge over Wilkerson Creek, one mile above its mouth and the other a railroad bridge, over the land cut eight tenths of a mile north of the highway bridge. Both of these bridges are draw bridges with ample room to permit the largest yacht to go through safely. This new route will make easier a portion of the run to Florida and yachts going south this fall will find this a big improvement over the conditions as they existed before.

CANADA PLACES NEW AIDS

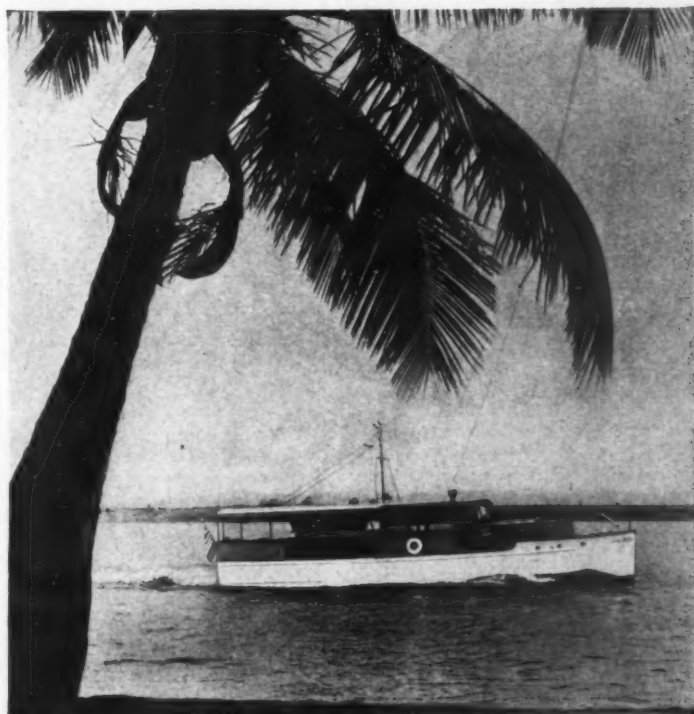
The Canadian Department of Marine is erecting on Hudson Strait a new form of light house, for aid to navigation which instead of operating with the usual lantern or light, relies upon radio direction finding equipment to locate and inform boats just where they might be.

Other portions of the Canadian Waterways have already been fitted with stations of this kind. Ships at sea are enabled to send in radio calls to the nearest station on land, from which they request a bearing. The receiving instruments are so designed that invariably the directional radio operators can tell quite accurately the course of the ship from which the call has come. Other operators at adjacent stations also take bearings while the ship is sending signals and a complete summary giving the bearing of the ship from each of three stations is sent back to the ship in a very short space of time. This information enables the master to fix his position exactly and by this means is hindered to a much lesser extent by poor weather.



DOLLAR for dollar,
in custom-built luxury, and in addition,
the extra values of **STANDARDIZATION**

PLAN to make this the finest winter you've ever had. Cruise down the inside route to Florida in your own A. C. F. "54". Enclosed bridge-deck, lounge, commodious state-rooms, sleeping accommodations for eight and a crew of two. Beautifully appointed galley, lavatory, shower, etc. Twin-Screw HALL-SCOTT Reduction Gear engines. Complete equipment; linen, silver and china.



TYPICAL of the entire A. C. F. fleet, is the beautiful A. C. F. "54". . . staunch and seaworthy as a whale-boat; graceful as a seagull; comfortable as your own home. The design is from the board of Eldredge-McInnis and incorporates every luxury which nautical experience has devised for

a craft of this type . . . but . . . when you compare it, at its price, then its **EXTRA** values become apparent; values which are possible only through *standardization* and through the tremendous purchasing power of so enormous an organization as the American Car and Foundry Company.

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In the Service of the Nation's Railways...Highways...Waterways...Industries

BOSTON—Noyes Marine Sales Co., 1037 Commonwealth Avenue • DETROIT—A. C. F. Salon, 500 E. Jefferson Avenue • CLEVELAND—N. J. Shea, 1424 Lauderdale Avenue, Lakewood • SAN FRANCISCO—S. C. Kyle, 427 Rialto Building • PHILADELPHIA—Universal Service Motors Co., Broad and Wood Streets • CHICAGO—Ward A. Robinson, 58 E. Washington Street • WEST PALM BEACH—C. F. Whitney, c/o Bryant & Gray • WILMINGTON, DEL.—American Car and Foundry Company.

Mention MoToR BOATING, 57th St. at Eighth Ave., New York

American Motor Boat Records

Mile Trials

(Average of 6 One Mile Runs)
 Mile trials, Miss America VII, owned by Gar Wood, Detroit, Michigan, September 4, 1928. Speed 92.838 m.p.h.

Gold Cup Class

625 cubic inch displacement boats
 Fastest heat (30 miles) Hotsy Totsy, owned by Caleb Bragg, Greenwich, Conn., 1927. Time, 35:06:83; speed, 51.261.

Fastest lap (3 miles), Imp, owned by Richard F. Hoyt, Manhasset Bay, 1926. Time, 3:22; speed, 53.58.

Total race (90 miles), Greenwich Folly, owned by George H. Townsend, Greenwich, Conn., 1927. Time, 1:51:34.21; speed, 48.39.

(Unlimited Hydroplane)

Fastest heat (30 miles), Miss America, owned by Gar Wood, Detroit, 1920. Time, 25:44; speed, 70.0.

Fastest lap (5 miles), Miss America, owned by Gar Wood, Detroit, 1920. Speed, 71.4.

Total race (90 miles), Miss America, owned by Gar Wood, Detroit, 1920. Time, 1:28:07; speed, 62.0.

Detroit Sweepstakes

Fastest lap (3 miles), Packard Chris Craft II, owned by Colonel J. G. Vincent, Detroit, 1925. Speed, 58.95.

Total race (150 miles), Packard Chris Craft II, owned by Colonel J. G. Vincent, Detroit, 1925. Time, 2:41:47.10; Speed, 55.65.

British International Trophy

Unlimited Hydroplanes

Fastest heat (38.1 miles), Miss America I, owned by Gar Wood, England, 1920. Speed, 61.5.

Fastest lap (5.75 miles), Miss America V, owned by Gar Wood, Detroit, 1926. Speed, 72.70.

24 Hours

Rainbow IV, owned by Harry G. Greening, Lake Rosseau, Canada, October 2-3, 1925. Total miles, 1218.88. Speed, 50.78.

1½ Liter Class (Trial Runs)

Newg, owned by Miss M. B. Carstairs, England, March 12, 1927. Speed, 39.45.

In Competition, Little Spitfire, owned by J. H. Rand, Jr., Detroit, September 3, 1927. Speed, 42.17.

151 Class—Unlimited

1-mile straightaway, Spitfire V, owned by J. H. Rand, Jr., Albany, N. Y., July 5, 1927. Speed, 62.82.

In competition, Spitfire V, owned by J. H. Rand, Jr., San Diego, Calif., December 12, 1927. Speed, 55.42.

One lap in competition, Miss California, owned by Harris, Loynes, San Diego, Calif., December 12, 1927. Speed, 59.68.

151 Class Limited

In competition, Angeles, owned by H. A. Mills, Los Angeles. (Now Miss Rioco, owned by J. A. Talbot, Los Angeles), San Diego Calif., December 12, 1927. Speed, 47.12.

Mile trials, Miss Rioco, owned by J. A. Talbot, Miami Beach, Florida, March 19th, 1928. Speed, 50.60.

215 Class

(Now abandoned) in competition.
 Bertha McFarland, Laughrey Island, Ohio, September 25, 1926. Speed, 41.86.

340 Class

Miss California, owned by Loynes-Harris, Houston, Texas, July 2nd, 1927. Speed, 50.99.

510 Class

Miss Houston IV, owned by Frank H. Robertson, Louisville, Ky., July 5, 1926. 10 miles—in competition. Speed, 51.28.

7½ miles, Miss Kemah, owned by Henry Falk, Houston, Texas, July 4, 1927. Speed, 53.41.

One Mile Trials—Miss Houston IV, owned by Frank H. Robertson, Louisville, Ky., July 5, 1926. Speed, 53.43.

725 Class

5 miles—Helen, owned by M. J. A. Mitchell, Louisville, Ky., July 5, 1926. Speed, 61.22.

Mile straightaway, Doc's II, owned by L. R. Van Sent, Peoria, Illinois, October 11, 1925, winning King of Belgians' Trophy. Speed, 61.77.

Single Engine Hydroplanes

1 mile, Miss Chicago, owned by Sheldon Clark, Detroit, Sept. 3, 1921. Speed, 72.86.

15 miles in competition, Fore, owned by W. D. Foreman, Cincinnati, Ohio, September 29, 1923. Speed, 64.75.

OUTBOARDS

Class A

2 Mile Amateur

BRRRRRRR, owned by A. Sutherland at Springfield, Mass., July 8, 1928. Built by Cate Craft Corp., Lockwood engine. Speed, 24.00.

2 Mile Free for All

Cute Craft, owned by A. T. Buffinton at Worcester, Mass., May 30, 1928. Built by Cate Craft Corp., Lockwood engine. Speed 23.841.

Class B

Mile Trials—Amateur

Min, owned by Alice Hallowell at Albany, N. Y., July 6, 1928. Built by Water Wracer Co., Lockwood engine. Speed, 29.709.

2 Mile Amateur

BRRRRRRR, owned by A. Sutherland at Springfield, Mass., July 8, 1928. Built by Cate Craft Corp., Lockwood engine. Speed, 30.638.

2½-Mile Amateur

Goo Bye, owned by D. Robinson at Lake Elsinore, California, May 6, 1928. Built by F. J. Pierce, Johnson engine. Speed, 23.529.

3 Mile Amateur

Powder River, owned by Dr. Rogers, at Oshkosh, Wisconsin, July 15, 1928. Built by Gordon B. Hooton, Lockwood engine. Speed, 29.59.

4 Mile Amateur

Scout, owned by Charles Hall, Jr., at New Bern, North Carolina, August 6, 1928. Built by Meadows Marine Railway, Lockwood engine. Speed, 33.065.

4 Mile Free for All

Fidget, owned by H. E. Becker at Philadelphia, Pennsylvania, August 25, 1928. Built by Herbst, Lockwood engine. Speed, 28.80 m.p.h.

6 Mile Amateur

Powder River, owned by Dr. Rogers, at Oshkosh, Wisconsin, July 15, 1928. Built by Gordon B. Hooton, Lockwood engine. Speed, 29.268.

Mile Trials—Free for All

Wilkie's Baby Cute Craft, owned by J. E. Wilkinson, at Worcester, Mass., May 29, 1928. Built by Cute Craft Corp., Lockwood engine. Speed 35.660.

2 Mile Free for All

Original Spencer Special, owned by R. M. Spencer, at Springfield, Mass., July 8, 1928. Built by R. M. Spencer, Lockwood engine. Speed, 30.901.

3 Mile Free for All

Wee Minneford, owned by E. Hauptner at Greenwood Lake, N. Y., July 5, 1928. Built by owner, Lockwood engine. Speed, 28.42.

Class C

Mile Trials—Amateur

Firefly II, owned by Charles Holt, at Newport Beach, California, June 3, 1928. Built by F. Ashbridge, Evinrude engine. Speed, 38.436.

1 Mile Amateur

Firefly, owned by Charles Holt at Long Beach, California, May 20, 1928. Built by F. Ashbridge, Evinrude engine. Speed, 33.333.

2 Mile Amateur

Baby Whale XIII, owned by H. R. Maddocks at Worcester, Mass., May 30, 1928. Built by D. N. Kelley & Son, Evinrude engine. Speed, 32.876.

2½ Mile Amateur

Bonnie Lass, owned by J. F. Graham at Lake Elsinore, California, June 10, 1928. Built by J. F. Graham, Evinrude engine. Speed, 34.749.

3 Mile Amateur

Chief Osh, owned by Dr. Rogers, at Oshkosh, Wisconsin, July 15, 1928. Built by Gordon B. Hooton, Johnson engine. Speed, 32.73.

4 Mile Amateur

Impish II, owned by Chesley J. Allen at Philadelphia, Pennsylvania, August 2, 1928. Built by Cute Craft Company, Evinrude engine. Speed, 32.07 m.p.h.

5 Mile Amateur

Bonnie Lass, owned by J. F. Graham at Lake Elsinore, California, July 4, 1928. Built by B. Holt, Evinrude engine. Speed, 36.00.

6 Mile Amateur

Chief Osh, owned by Dr. Rogers, at Oshkosh, Wisconsin, July 15, 1928. Built by Gordon B. Hooton, Johnson engine. Speed, 22.23.

10 Mile Amateur

Flying Scotsman, owned by David Mackay at Lake Elsinore, California, July 4, 1928. Built by B. Holt, Evinrude engine. Speed, 34.615.

(Continued on page 188)

Going Shooting this Fall?



Model 16 steps out at a neat pace with two aboard

AS YOUR country anything like the New England coast, the Lake region, Texas, or the West Coast?—where if you want to hunt game sometimes it's a long, long way around to hunt a decent motor road to get to it.

If you could only head your car straight across the chunk of water that's between you and the ducks, what a lot of extra time you'd have for the birds.

For instance, take the East End of Long Island. The man at Peconic or Mattituck who wants to shoot ducks in Shinnecock Bay has got to go around the head of every bay, estuary and inlet and slow down for every village. Where if he *could* use the waterways with a fast craft, he would cut off three quarters of his distance, and hold his speed on a straight course without any delays.

The trouble is that a boat as fast as a car usually costs too much money for the ordinary man to afford. Here is where the little outboard Sea Sleds can serve you. They will give you speed anywhere between

17 and 30 miles an hour, depending on engine, load and skill.

The cost is in the price range of the cheapest car you know. They are the safest, dryest craft of their inches afloat and in country slotted with waterways, will often make much faster time to a given point than any car you could use.

Hunters east and west are finding that a sportsman can get more satisfaction out of a Sea Sled than almost anything else in the world because the Sea Sled gives the hunter the advantage of a fast marine runabout in places where an automobile has to go too far around.

Don't think for a moment that anybody is making the illegal suggestion that you shoot game birds from a power boat. The game laws are quite competent to prevent that. But for handling the decoys, and making a fast trip out to the "blinds", there is nothing of the size or at the price which is quite so adequate as a little outboard Sea Sled.



Model 13 will lug six at a pinch and will do from 17 to 30 miles an hour with one

Model 13

Model 13 is an open boat; short deck forward, solid mahogany, double-planked bottom, bronze bound chines. Does 25 miles with 10 H. P. outboard with perfect safety and discretion. Good for anything up to 32 miles an hour with higher powers but not so much discretion. This is a light craft for rowing and is equipped with oars and oar-locks.

List Price \$218.

Model 16 Outboard Runabout

Here is a real little power boat. Solid mahogany, double-planked bottom, bronze bound chines, full deck, double cockpits, forward steering control, running lights, horn, fire extinguisher and cushions complete. This craft is not only able and fast but extraordinarily smart as well.

List Price \$475.

A Rare Opportunity

Dealers this season are doing especially well with these two outboard Sea Sleds. The demand has kept the plants pushed for deliveries since January first, but there is still some good territory left uncovered and we would like to talk with the right man in the right place.

Exclusive features

Dependable as a fine car
Will not roll
Will not stick her nose under
Planes on her own spray
Does not drag aft
Navigates shallow water
Safe and dry at speed in rough
water

TRADE-MARK REG. **SEA SLED** U.S. PAT. OFFICE
THE SEA SLED CORPORATION
Sole Licensee under Hickman U. S. Patents
226-228 Fourth Ave. at 19th St., New York
All Prices F.O.B. Yards at W. Mystic and Groton, Conn.

SEA SLED
SPEED - WITH COMFORT AND SAFETY

Exclusive uses

Commuting marine motor
Class racer for youngsters
Fast marine runabout for women
Day Cruiser for family
Tender for racing yachts
Harbor tender for sea-going
yachts

Mention McTORG BOATING, 57th St. at Eighth Ave., New York



Photograph by M. Rosenfeld

When the Twilight Shadows Fall

Miss America V and Miss America VII in the Final Heat for the British International Trophy, Racing Alone for the Supremacy of the World After Eliminating All Other Contestants



Gar Wood and his engineer, Orlin Johnson, in the cockpit of Miss America VII, showing the two 1,000-h.p. Packard motors

92.838 Miles Per Hour

Miss America VII, the Latest Gar Wood Boat, Built in Three Weeks' Time, Establishes New World's Record

NEVER in the history of motor boating was there a day like September 4th, when at Detroit Gar Wood's Miss America VII set up a new world's motor boat record of 92.838 statute miles per hour. This was established on a one nautical mile course. Miss America VII ran six times over this course—three times upstream and three downstream. The speed of 92.838 is the average of the six one-mile runs.

Propelled by two one-thousand horsepower Packard motors, driving 21 by 34 Columbian propellers at 3,600 revolutions per minute, Miss America VII took less than 45 seconds to cover the one nautical mile course, a speed not only faster than any other boat has ever officially made but faster also than any other form of self propelled vehicle with the exception of an airplane or a racing automobile. Commodore Wood's own world's record of 80.567 miles per hour, established at Detroit in 1921 with his Miss America II, powered with four Liberty motors, was bettered by more than 12 miles an hour.

Miss America VII is the product of Gar Wood himself. She

was built in his own plant at Algonac, Michigan, designed jointly by himself and Napoleon Lisse, who has assisted Commodore Wood in the designs of many of his famous racing craft.

Less than three weeks previous to the day on which this remarkable record was established the keel of Miss America VII had not been laid. Miss America VI had been built, but on her trials she upset and sank, boat, motors and everything. Race day was less than three weeks off. The first order that Commodore Wood gave after having been hauled out of the water was to start a new Miss America, to be known as Miss America VII, and to build her "longer and bigger than Miss America VI." To turn out the fastest boat in the world, to thoroughly test her out and make her ready in less than three weeks' time was no small task. But the Wood organization has been noted for its ability to do things in the past and Commodore Wood has never been known to come to a starting line unprepared. He knew that his organization

(Continued on page 124)



Start of the Cruiser Class at the Detroit Regatta

Photographs by M. Rosenfeld

America Keeps BRITISH INTERNATIONAL TROPHY

Miss America VII and Miss America V Only Two Boats Which Are Able to Complete Course. Other Races at Detroit Provide Thrills for Three Days

(Summary of results on page 106)

(Boat specifications on page 108)

GAR WOOD is still World Speed Champion. We have written this phrase so many times—almost annually since 1920, that it has become almost monotonous. But facts are facts.

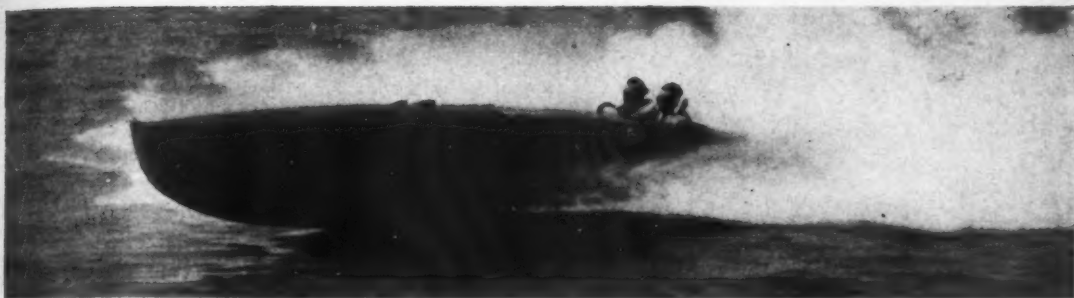
No person in this big world of ours seems capable of building a boat which will give Commodore Wood even respectable

competition, not to mention having a chance of beating him. This latest effort on the part of one English lady and two Americans ended in the greatest fiasco we've had in years.

Miss Betty Carstairs of London, England, wonderful sports-lady as she is, brought over to America her Harmsworth Trophy Challenger, Estelle II, powered with a 800 horsepower Napier



Estelle II, the British challenger for the Harmsworth Trophy, which upset and sank during the first mile of the race



Miss Los Angeles, the entry of James Talbot, Jr., of Los Angeles. This boat had a good turn of speed but lacked stability qualities

engine, one of the best motors built. Estelle II overturned and sank before the first mile of the course had been covered. The design of the boat was totally unsuited and it is hard to see how any reputable designer would have allowed such a craft to live after what her first trial trip must have shown.

James Talbot Jr. of Los Angeles, California, commissioned John L. Hacker of Detroit to design a Gold Cup racer for him for this season's events. When the Gold Cup race was called off, Mr. Talbot decided to enter the new boat, which he named Miss Los Angeles, in the Harmsworth trials, which were held to choose the three boats to make up the American team to defend the Harmsworth Trophy. Miss Los Angeles was chosen as the third American boat, teaming with Gar Wood's Miss America V and Miss America VII, principally for the reason that there was no other boat to choose.

In the first 30 nautical mile heat of the Harmsworth race, Miss Los Angeles finished, but at a speed too slow to

Century Cyclone, driven by Malcolm Pope and powered with a Johnson outboard motor



Start of one of the Outboard Classes. A Chris Craft was used as the pace boat





Oh Kay and the Kay Oh, owned by O. K. Hunsacker of Los Angeles, California, won in Class C

Detroit Yacht Club, changed her name to Scorpion, came out in front of the judges' stand, threw up a cloud of spray from one or two of her three surface propellers which happened to be running at the time and sank. No one seemed sorry.

The above, in brief, is the story of this year's Harmsworth Trophy race, excepting, of course, Gar Wood's demonstration that he is still years and years, as well as miles and miles ahead of any person, here or abroad, or anywhere in the world, when it comes to speed on the water, preparedness, reliability of power plants, seaworthiness of hull and the thousands of other incidentals in which it is necessary to surpass to be Speed Boat King.

Miss America VII was built by Gar Wood in less than three weeks' time after his Miss America VI had sunk on one of her trials less than a month previous to race day. Yet Miss America VII was the most finished product that ever came to a starting line. She was perfect to the last detail. In appearance and running qualities there was nothing lacking. Although in the race



Awandra, winner of the race for Matthews cruisers

itself Miss America VII was never extended yet on the following day in the mile trials she showed that she could almost hit the hundred mile an hour mark.

Miss America V was the third member of the America team.

This is a boat which is now in her third year, having successfully defended the Harmsworth Trophy at Detroit in 1926, raced in Florida in 1926 and 1927 and at other regattas. Yet in spite of her age she ranks second only to the new Miss America VII. (See complete specifications of all boats on page 108).

This year's contest for the Harmsworth Trophy is the fourteenth which has been held since 1903. England has been successful in winning five, of the events, France has won one and America eight.

The first American boat to race for and win the trophy was Dixie I. This was in 1907 when this boat, owned by E. J. Schroeder, won the race on the Solent. In 1908 Dixie II successfully defended the trophy at Huntington Bay, Long Island. In 1909, there was no race but in 1910 at Huntington, Dixie III was again successful. Dixie IV (Continued on page 102)



Rainbow VII, Commodore Harry B. Greening's new gentleman's racer. This boat, which was designed and built by Ditchburn and powered with two Gar Wood Liberty engines, is capable of carrying ten or more people comfortably at a speed of better than 65 miles an hour



A glorious sunset
on Puget Sound

Ramblin' Round Puget Sound

with an Outboard

*Two Women Circumnavigate
America's Greatest Inland Sea*

By DOUG WILLIX

EVER sailed on Puget Sound in the summer time? No? Never fondled the helm of a stout little ship that pushed its eager nose through blue-green waves slumbering in the sunshine, or battled through spitting combers into the snug comfort of an island bay rimmed with giant firs? There's peace in the one, a thrill in the other—joy in both of 'em.

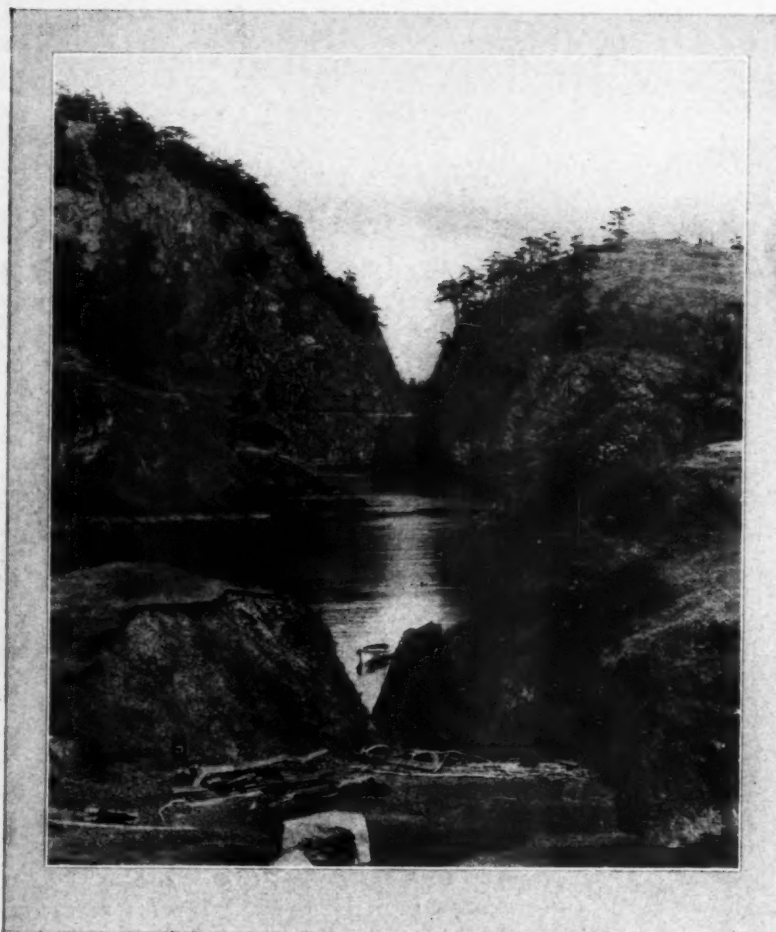
Thousands of miles of shoreline, much of it still in the same condition it was scores of years ago when great war-canoes, propelled by the bronzed arms of sea-goin' Indians, foamed about rocky points to hurl defiance at native foes. Old Puget was wild then; there's a tang of freedom still hovering about it, although great ships ply its clear waters bringing strange goods from the marts of the seven ends of the globe.

Busy cities, heavy with the scent of crowded humanity, dot the shoreline, but the ways of escape are many to those who'd flee into the salt-tingling air of America's greatest playground.

For those who'd learn of the joys of life that make up the magnet of the Great Northwest—hearken to the tale of an outboard that gaily pumped health, thrills and joy into the brave hearts of two members of the well known weaker sex.

But that's only partly right; it was the wooded shores of old Puget and the willingness of a staunch little craft that conspired with the humming gaiety of the Johnson Standard to work the magic. Snap over that flywheel, ladies, and while she pops we'll spin our yarn.

Overhead, sprightly clouds played tag in a sky of the clearest blue and into the office window of a tall Seattle building came a crisp, salt-laden breeze that did more than tumble about papers on the desk of Mrs. Frances Burr, secretary for a well-known Seattle law firm. It danced merrily in and out of a busy office laden with thoughts of briefs and demurrers and pleas; cheerily it waylaid our joint-heroine and whispered:



One of the many picturesque and unexplored coves along Puget Sound

"Silly creature! Why languish here when I know the way to the playgrounds of great salmon—miles of sandy beaches to camp upon—tiny bays whose secrets need solving—winding passages between tall islands—away with you, I say!"

Back out of the window it went and left in its wake a decisive lady who reached for a telephone and in a moment was saying:

"Jo! We've just got to make that trip! I'm coming over to get you this afternoon and we're going to see about having that boat built!"

On the other end of the line, Miss Jo Grant, an accountant, poured forth hearty agreement. Not long after the foot Chancit rolled down the ways of one of Seattle's shipbuilding plants and waited impatiently for her fitting-out on Lake Washington. She was as trim a wave-biter as any clipper that winged its way around Cape Horn.

She was only four feet in beam, but she bristled with confidence, while her polished oak ribs hinted at sturdy construction. She was sheathed with red cedar hewed from the wooded sides of rugged Washington mountainsides. To the eye of the small-boat enthusiast Chancit was truly a work of art. Majestically she floated on the calm waters of Lake Washington, that great body of fresh water at Seattle's back door, with an air that defied her two mistresses to

Jo decides to do some laundrying in the clear waters



overload her spacious hull.

For a week the crew was storing their ship—all the nautical soup to nuts were tucked away in roomy little lockers under thwarts and decks. Even a canary was booked for passage; an accomplished parrot might have been more appropriate, but let's not argue.

All the marine supply houses in town were visited in search of a power plant, and, after the feminine inspection that demands beauty as well as efficiency, they both fell in love with a Johnson Standard Twin motor, 4 hp. The sturdy rig was buckled on to Chancit, comfortable yachting garments were donned, the engine kicked over and with a pop it tackled the job of conducting what we believe to be the only complete circuit of Puget Sound by two women in an outboard motorboat.

Both of 'em own fine motor cars, but who'd favor a crowded dusty highway when the finer thing is waiting—the outboard motor trail of happiness? Mrs. or maybe Captain Frances was on a ship once that was wrecked on a rocky shore coming home from Alaska, but still she loves the sea. And when it came to navigating Jo Grant wasn't so dusty, either; she knew port from starboard and the difference between a keel and a sheerstrake! Who worries about anything else? Up with the hook and away!

It was sweet to lend an ear to the joyous hum of the Johnson; without a skip it kept perfect time and stirred up the smooth waters of Lake Washington as Chancit struck out for the narrow canal leading out of Lake Washington. They approached the waterway and passed hard by the great crew-house which keeps the lean shells of the University of Washington rowing crews—those tall youngsters whose broad backs have brought wide-spread fame to the Northwest. But vacation is on and the candidates for the rowing squads are scattered, waiting for the coach's call, which will set them to the swinging of twelve-foot oars again.

The crew-house was passed and before the intrepid mariners Lake Union unfolded, square in the heart of a metropolitan city. There in that civilization locked body of water are hulks from the far corners of the earth. Romance and faded glory stalk the decks of great, stark sailing ships whose tall

masts whimper as a gay breeze goes teasingly through their rigging.

Chancit passed through Lake Union and headed for the ship-canal, second only to Panama in the world, which connects the fresh-water lakes with Puget Sound. Through the canal they rambled with the picturesque homes of Queen Anne hills looming up on the left—beg pardon, port side.

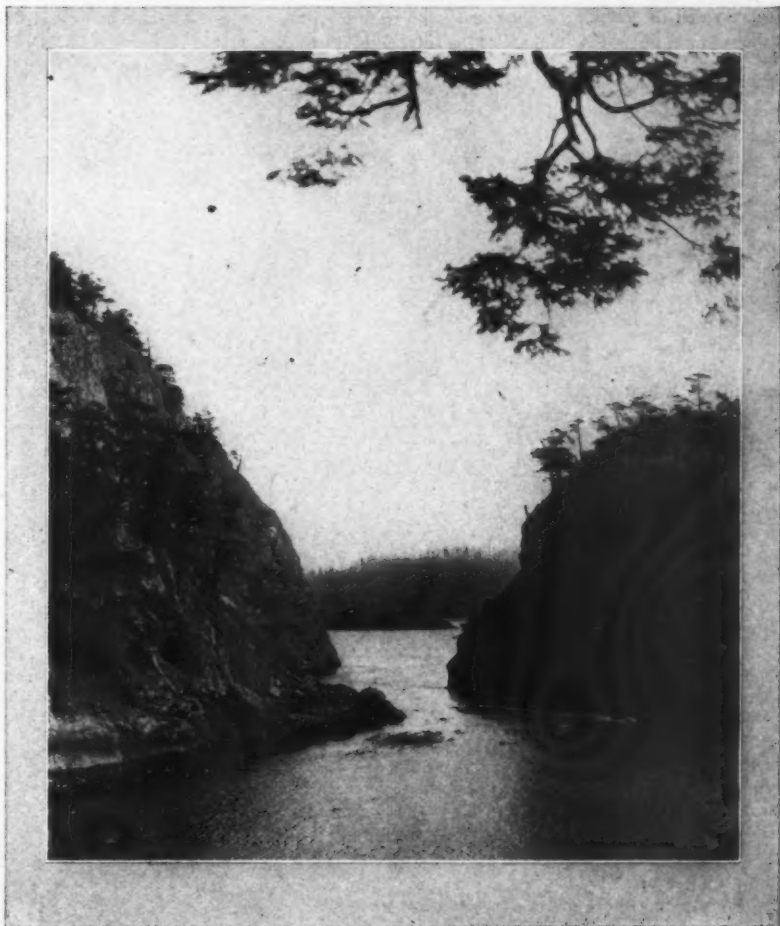
Soon the mills and factories of Ballard hove abeam. Then, in company with other small boats, they entered the locks, whose high concrete walls towered high above them, and then they dropped down, down, down, and then down some more to the level of the waiting Puget Sound.

Slowly the great gates opened and they felt the slap of swirling water against the stout side of their ship. Salmon Bay was revealed before them and Fort Lawton high above them on the neighboring hills. The open Sound invited them to chug onward. Skipper Burr charted her course over those irresistible, jade waters. She knows her compass, does this lady whose work is in tall buildings, she knows her charts and tides and is far from an amateur at the intricacies of practical navigation.

Slicing merrily through wind-rippled water on her first great adventure, Chancit rounded Four-Mile Rock and pop-popped into Elliot Bay, Seattle's great harbor, where a slight breeze was setting in from the nor'-east. Courageously, the tiny ship met the crack Oriental mail liner, President Madison, getting under way for her twenty-knot pace across the Pacific rim with cargo and passengers for Japan, China and the Philippines. Gayly clad men and women, lining rails fathoms above the water, waved greetings at the crew of Chancit and Jo and Frances answered them. There was no jealousy in their hearts—what is a trip in a great island of a ship, a hotel that floats, to be compared with the keen joy of running your own vessel, one that dances over waves and has an inquisitive nose for out-of-the-way places? Not a chance?

Chancit quartered into the foaming wake from the huge ocean greyhound and deigned to roll but slightly. An independent little ship, Chancit!

Time churned by as the two of the Chancit watched the bright summer's sun climb toward the meridian and saw themselves



The size of the boat in comparison to the cliffs supply a scale to judge the grandeur of these Puget Sound cliffs

come well abeam of Seattle, her trim skyline etched against a background of marine blue. The shining tower of the 48-story L. C. Smith building loomed like a great white bird against the sea level of Elliot Bay. Fussy tugs pulled on lazy barges; snub-nosed ferryboats and heavy-laden fishing craft weaved about in the harbor while a grimy lumber tramp lounged around Duwamish Point inbound from Tacoma.

Avast mates! Alki Point abeam! Bye and Bye that meant, in the Indian jargon when white settlers first landed there in 1851. They called their settlement New York and added the word Al-ki, for they fully intended their town to be the New

York of the Pacific shore. Bye and Bye. They built surely, those grim pioneers, for a great city has followed their rude log cabins and all of that in the span of a single life-time. Chief Seattle and his fellow red-men had vision. Give the palm to those intrepid Indians of these Puget Sound shores!

On the city beach of Alki Point hundreds of people were swimming in Elliot Bay's cool waters while thousands were loafing on the snowy white sand. The Johnson worked like the proverbial charm, rolling off the miles with but a single drone of her cylinders

—a monotone sweet and pleasant. Stroke for stroke it never missed a pop, speeding Chancit over the tranquil waters at twelve or thirteen miles an hour.

The seventeen-foot Johnson powered outboard boat, Chancit, with its two members of the crew



Silence ruled the fo'c'sle; skipper and mate were too busy watching the setting of water, mountains and trees—a panorama that inspired deep breathing and thinking, but little was said; there was nothing to say. To the southeast towered the white cone of Mount Rainier, rising over 14,000 feet above sea-level and before its calm majesty human pettiness seemed small indeed. To Chancit's starboard were the forest-covered shores of Vashon Island, dotted here and there with a farmhouse or cottage, with a foreground of rolling blue, whitened in spots by a breeze-tipped white cap.

There was the smack of a leaping salmon; the shriek of a boat's siren or the far-away boom of a deep-throated ship's whistle. Chancit pushed on to the South as Jo adjusted a cushion under her curly locks and began entries in the ship's ledger, more commonly called a logbook since Phoenixians first peered through the Pillars of Hercules.

Brave and skillful skippers have sailed forth from ports in Europe and America during the past few hundred years, but many of those old shell-backs could take a few lessons in juggling logarithms or in dead reckoning from Old Man Burr of the liner Chancit. Guesswork simply doesn't go with that skipper; she knows her bearings and cross bearings every minute when she's offshore. Mrs. Burr, you see, was cruising when some of us younger folks were learning about ships from picture books. For years she lived near Active Pass, between the United States and Canada, and, in order to leave the pass, you simply had to know your stuff. In those parts, tides are tides, they ebb and flow with tremendous force and speed.

But back to our southward trek of Chancit. Tacoma, the home of 90,000 citizens with their great lumber and flour mills, was the immediate destination of the adventurers.

Pushing along at a steady pace, their ship passed close to Maury island, named for Lt. William Maury of the Wilke's exploring expedition of 1841, famous in Northwest history. But who cares for the deeds of dead men when overhead blue sky is the playground of frothy cottonball clouds and the curl of waves ahead make a good ship like Chancit quiver with glee? On, on they swept until Commencement Bay was sighted with its populous hills sheltering Tacoma's thousands.

Chancit circled the busy bay but cities are not for a craft that's had even a taste of the roll of a ground swell and, with the Johnson Standard purring contentedly, they passed out of Tacoma harbor and around Point Defiance.



Some of the mighty waterfalls which help to swell the volume in the Sound

Late afternoon was nearing and in the solemn state of the skipper's cabin a council of war was held. Should they push on, and on, or should they be content with their run for the day and find a snug sleeping place on yonder shoreline?

Ah wiseman, there was a problem for you! Ahead of the twain stretched miles upon miles of tantalizing water, only a soothing swell and a whispering breeze ruffled its placidity. Chancit was smiling as her sharp bow knifed into the blue now taking on a deeper hue with the lowering of Old Sol—Chancit pleaded her case right well; her cry was on and on over the jade water.

Yet, abeam were green woods and sandy shores that sparkled for an instant when a low wave rolled in. The lazy tops of tall firs swayed gently—both sailors knew that the music of music was wafting out of the rustling of those centuries-old trees. Underneath them, sleep was sound, the coming of a new day a joyous thing.

Push on an hour or two longer, or to put in for shore? which?

Reluctantly, the skipper and her mate decided that there were other days ahead and Chancit, grumbling, perhaps, turned her bow toward shore and a moment or two later, as the Johnson ceased its singing, crunched on the pebbles of a welcoming beach.

Stout arms pulled Chancit to a safe place and a long painter was led upshore where skillful fingers knotted it about the trunk of an uprooted tree. Chancit, that a sea boat, must consent to such indignity! Ah, but you must, for you're the gay charger carrying fair maidens down the pathway of adventure. There's work for you tomorrow!

A tent, you ask? What, use canvas, when overhead is the bright canopy of the heavens? A sleeping bag, mayhap, but Puget Sound summer looks askance at tents!

Quickly and surely, knowing hands built a camp-fire—not a great roaring one—that's the mark of an amateur—but a small cheery blaze that puts just the right crisp on curling bacon and to the French fried—oh, the wonders it performs! A generous coffee pot bubbled gleefully and its odors suddenly created vast, yawning

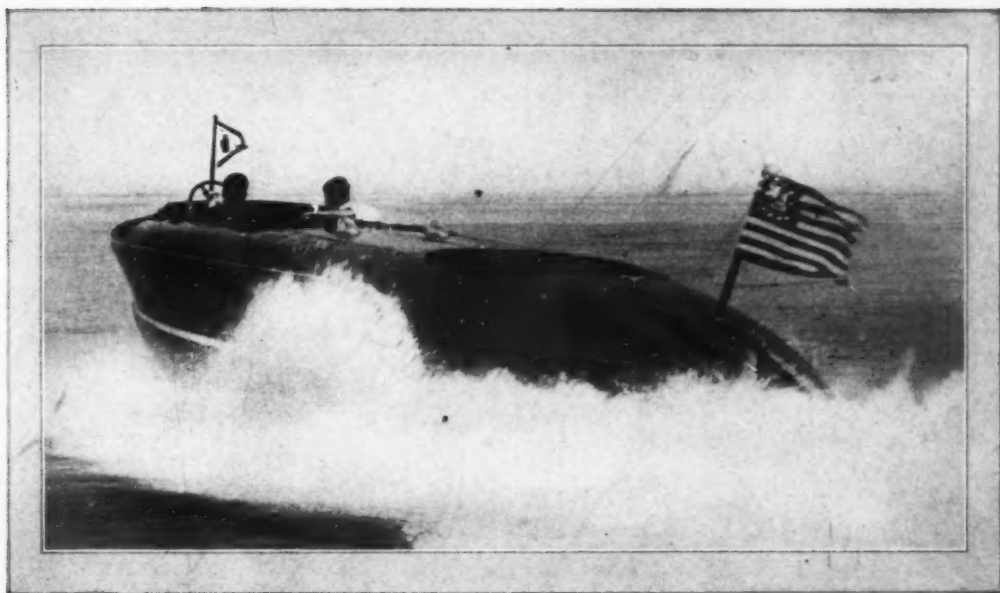
spaces in the innards of two bustling sailormen.

Then came night—a soft calmness broken only by the easy break of a near-by surf; morning—a glow of color through great timber and that tingling sniff of a salty breeze. Early rising was the rule and before the sun peered over evergreen tips Chancit was foaming again through the waters, ruffling in the face of a freshening nor'-east breeze. On to the south they went, intent on exploring the southern parts

(Continued on page 64)



A pretty figurehead from an old sailing ship carefully preserved in a public park



Sally Too tearing out over Oyster Bay on trials. Her stream lining can be seen here to advantage

Sally-Too

*A Fast Hydroplane Runabout of Unusual Design
Which Attained Mile-a-Minute Speed on Trials*

SALLY TOO is a rather unconventional name for a boat. But that is well, because Sally Too is far from being a conventional runabout. In the first place she is streamlined like a racing car with her cigar shaped forward lines running aft into a rounded form which is best described as whale back. Then, her dimensions are a bit large: 35 feet by 7½ feet by 4½-foot draft. The draft is figured amidships. In running condition the craft weighs 8,500 pounds. And then again the system of steps employed in the hull is rather interesting. Altogether she is quite different.

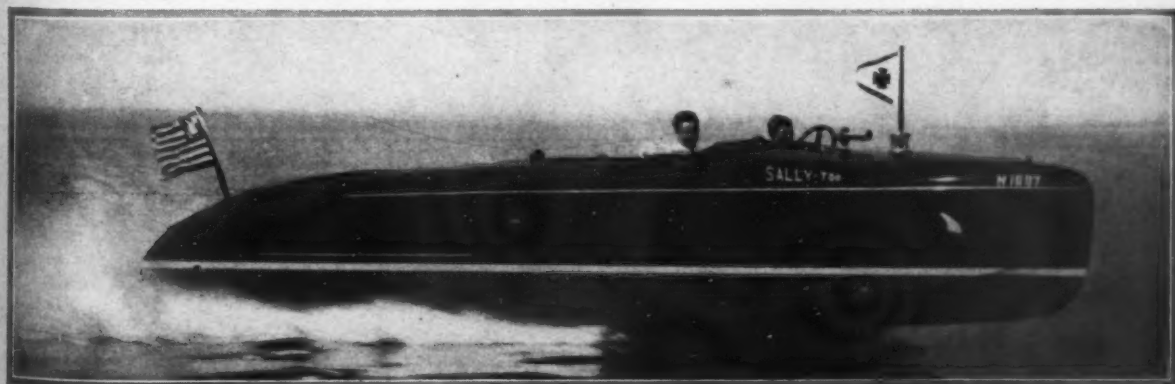
The construction throughout is double planked mahogany. The forward plane is built with longitudinal steps about one inch deep which by trapping the air are said to materially help the boat regain speed after immersing the forward plane while run-

ning in broken water. The termination of this plane is slightly Vee shaped.

The after step is of the pantaloon type, and there is a third plane or overhang at the stern carried to the end of the hull from which the rudder and strut are carried.

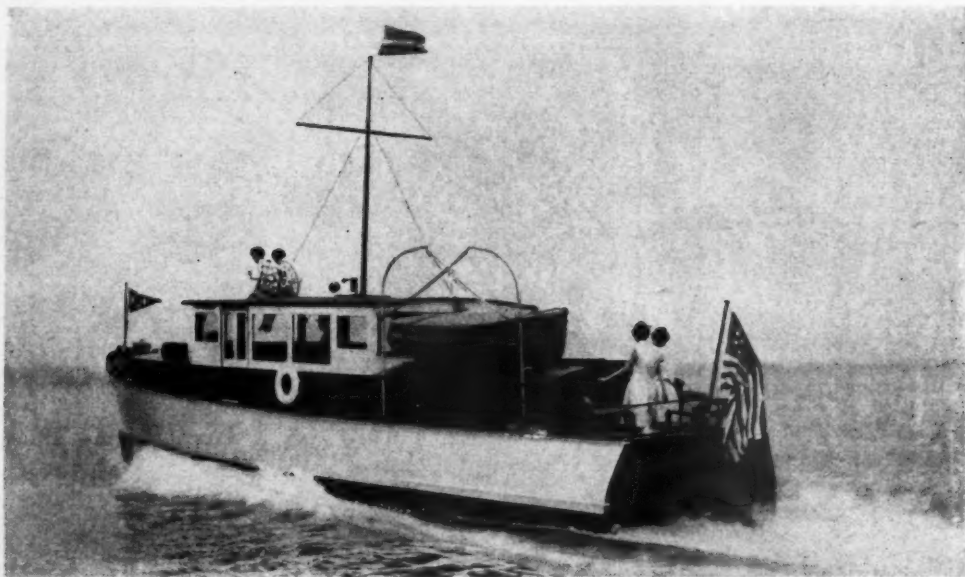
The runabout is powered with a low compression 500 h.p. 12 cylinder Wright Typhoon engine and on the first trials she made a speed of slightly over 60 miles an hour with a 19 by 39 wheel turning about 2,200 r.p.m.

Sally Too was designed and built for Austin J. Feuchtwanger of Riverside, Conn., for use at his summer camp at Moosehead Lake, Maine, where it was trucked by motor car from the yard of the builder, the Luders Marine Construction Co. of Stamford, Conn.



Photograph by M. Rosenfeld

It is apparent that this high speed runabout planes-particularly well. There is an unusual absence of spray



One of the newest series of Matthews 38 cruisers

Bigger *and* Better Cruisers

Larger Power Plants and Changes in the Interior Arrangements of the Matthews Thirty-eights Have Produced Faster and More Comfortable Boats

THE announcement, recently made, of the new 1929 models of the Matthews 38 family of boats, coincides with the 38th year of Scott Matthews in the boat building industry at Port Clinton, Ohio. It was in 1890 that Mr. Matthews produced his first boat in the present home port of Matthews Cruisers. The 38 years between that date and the present have seen many improvements in motor boats—and Mr. Matthews has always been abreast of this progress, always improving his models, until now, to celebrate the culmination of 38 years of successful boat building, the Matthews Company announces

what they consider the greatest boat value they have ever produced.

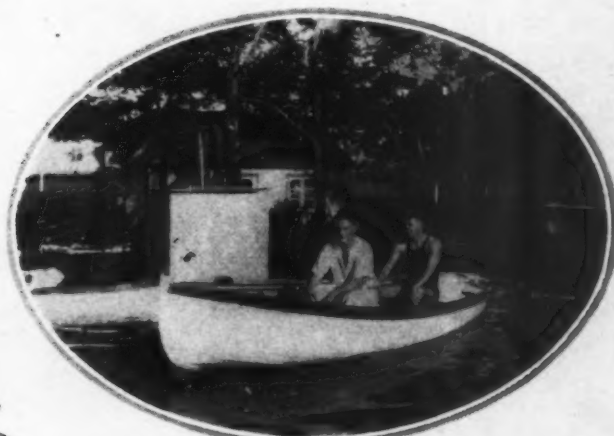
Although many new features of construction and added refinements distinguish the Matthews 1929 cruisers, probably the greatest innovation is the installation of 125 h.p. Kermath engines as standard equipment in all the Thirty-Eights. That added speed and power are to be found in the new boats as a result of this, is obvious.

Also, the 38-footers are 38 feet 6 inches actually. This extra half-foot may not seem important (Continued on page 132)



A line up of completed Matthews cruisers awaiting their owners

Boat Building *Under* Difficulties



The builders, after completing the hull, try it out in the swimming pool and find that it will float on an even keel

*Navy Boys While Away Spare Time at a Far
Off Asiatic Station by Building a Small Sail-
ing Dinghy and Learn Much About the Art*

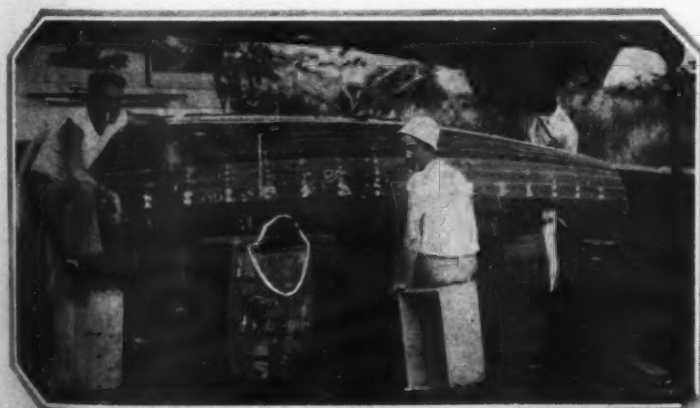
LOS BANOS, sunk back in the thick, damp jungle of the Philippines, was a comparatively quiet spot until two gentlemen from the Navy, who were stationed there last fall, got the impulse to build a boat. Los Banos, incidentally, is a naval communication station, located on a large lake called Laguna, and has more than its share of ants and prickly heat. The inspired boat builders were W. L. Berger and T. E. Ellis of the U. S. Navy. Ellis was a yeoman and Berger was assigned as doctor in Los Banos, for, as he later remarked, the place was too small for any of the high-priced help.

What started all the trouble was the arrival of a set

a boat before, but there was plenty of fine timber in the jungle—and there was that huge lake there just going to waste. What more could one ask for? And besides they had a lot of enthusiasm; and that covers a multitude of sins.

The specifications called for oak for the keel, but as the nearest oak was about 3,000 miles away they tore into the underbrush and hacked out a fine length of Narra. Narra

(Continued on page 130)



The little boat was built from MoToR Boating's design for Snapper, a 12-foot sailing dinghy, of native woods and with Oriental tools

The trial trip was most successful. A heavy wind caused high seas but the boat did not falter



of plans for a building a small boat—one of MoToR Boating's designs entitled Snapper, a Twelve-Foot Sailing Dinghy. How it got to Los Banos doesn't matter but what it did to the town (and the boys) is interesting.

Berger and Ellis, having plenty of time on their hands, seized the blue-prints at once and started to build Snapper. They had never built



George V. V. Brothers, Charles A. Banfield and John A. Brothers, the crew of three, waving their goodbyes to relatives and friends at the club

Down Hurricane Alley

The First Instalment of the Account of a Thirty-Two-Foot Cruiser's Run from New York to Bermuda—A Carefully Planned and Well Manned Boat Which Demonstrated Her Sea-Going Qualities Under Severe Conditions

By GEORGE VAN VLECK BROTHERS

SHALL we begin at the beginning? Shall we tell something of all that led up to adventure on the high seas, the planning of a small boat, the weeding out of the impossible and the confirmation of only that which diminutive scale allows in a small ship? The thrill of seeing this physical representation of dreams forming before our eyes at the hands of skilled and understanding men, shall we leave that out of our story? It would not seem just right to confine ourselves to the narrative of action, of how the completed craft put to sea, of how she carried three men down Hurricane Alley, as we came to call that mightiest of all rivers, the Gulf Stream. Only a thoroughbred could have gone on with the tireless unceasing strength that is hers—on, on, ever on, patiently fighting her fight alone in the ever changing kingdom to which she was born—the sea, the clouds, the wind, the sky, the light of celestial spheres, until at last, victorious, she came to rest in a tiny harbor among the old world islands of Bermuda. So let's begin:

Perhaps it was just a dream which came to life, the urge of wanderlust, the lust of open sky and water that was the origin of all this.

Perhaps this dream was fostered by leaning over the rail of a storm ridden trans-Atlantic liner and being convinced that a small boat would also be able in such a sea. Of course it would have to be just the right boat—a really small boat—not over 40 feet in length so that she might adapt herself to the sea itself rather than attempting to strike a stride of her own and thereby be punished to a greater degree. She must be complete, as complete as the largest vessel, she must be fully found. She must have the benefit of everything that time has proven best and all assembled to the perfect unit with the skill of modern methods.

And so the dream persisted and grew for several years until it could no longer be suppressed. Last October a trip was made to New York from the Berkshire Hills. Then came several days of prowling among boat showrooms. It now occurs to me that it might have seemed strange to many that I had such confidence in a stock boat being suitable to the purpose. The stock boat has now come to be accepted as the thing to buy, being a result as it is of specialization. So I had no thought of naval architects, blue-prints and all that follows.

It seems an unsuitable place to look for a boat along the streets

of New York but finally I went to a show room not far from Grand Central. Men had just moved the boat in early that morning, something like four o'clock when traffic was at its lowest ebb. The front windows of the showroom had not yet been replaced, but I had eyes only for the boat—thirty-two feet in length, eight and a half in the beam and very full in the bilges. The hull boasted lap strakes, copper fastened to three inch centers on husky one piece white oak timbers. It was arranged with the builders that they would depart in this case sufficiently from the stock arrangement of the interior of the boat to allow carrying many times the usual amount of fuel. The hull was to be started the first part of February.

In December I moved to New York and having no other way to kill time was permitted the pleasure of killing that time at the boat showroom and there it was very pleasant too, basking in the enthusiasm of the crowds of yachtsmen who came to buy, or at least admire the same boat that I had. In January the Motor Boat Show gave the opportunity to examine at close range the vast array of fittings which were mentally catalogued and pigeonholed for future reference. Immediately thereafter came a move to Atlantic Highlands, New Jersey, and within a few days the hull of my boat was started, hull Number 1366.

I was determined to watch every bit of the work done on the hull, not from a fear of imperfection but because of the enjoyment the thing gave of being able to see her take her shape. It seemed but a short time before the bare hull was

completed. Then it was that our good ship took her first move. In such an undignified way it was too, out of the Mould Shop on rollers such as used to move pianos about and then the fun began. A dummy wooden tank was built in the forward part of the boat, then taken out and sent to the tank builders for their pattern. Careful measurement showed barely room for six one hundred gallon tanks to lie athwartship from the stern forward and beds were built for them. This gave some nine hundred gallons of fuel capacity including the tank forward. It was decided that for this particular service it would be best to do away with the little forward cock-pit; the after one would be taken up with gasoline tanks so it seemed best to deck that flush with the gunwale and close the after end of what is usually the windshield, making a tiny pilot house out of it. To make it thoroughly accessible provision was made for the engine to be installed in the cabin directly forward of the little bridge. It was then apparent that engine and tanks would of course have to

be placed first and the rest of the boat built over and around them.

When the order was placed for the 35 h.p. heavy duty motor it was asked that it be specially tested for a determination of gasoline consumption, the result of this would have an influence on the amount of tankage required. Then came the wait preceding the arrival of this information and the engine itself. Days of impatience of running to and from the freight depot, looking for one very necessary engine. When at first it did not appear it was a restless waiting and then it grew to be a monotonous expectation until it seemed as if there was no hope—the engine never would come. It seemed as if we could wait no longer, we must get to sea, we must get out in the flying spume.

With reassurance, Mr. Banfield, the president of the boat building firm suggested that I might spend my time, if I must get out on the water, delivering some of the boats to their early spring customers, which of course gave me a chance to exercise my inland navigation but left the deep-sea satisfaction wanting. A restless period was passed over, going as far as Newport News, Va. in one direction and Cape Cod in the other, many of which trips could of course be stories in themselves. Finally, at last and hurrah! There came one morning the often expected Bill of Lading; the Bill of Lading heralded the approach of a precious piece of machinery. How precious we were yet to learn. Two days of later the engine stood there in its crate on the factory floor as had scores of engines before it. But

this engine was different.

It was ours. We must order the men to get crow-bars and hammers and un-crate it that we might see it, that we might feel it, that we might turn the fly wheel and feel it bounce back with the smooth compression—the latent power of potential energy. Of course the engine would arrive when there was a boat on the ways that was not ours, so Charlie Banfield, Mr. Banfield's brother must as he had done countless times before, take the boat and deliver her to her owner. As we were returning from this trip, Charlie said to me "Skipper George, we have gone on many a trip together. When this boat of yours is launched, it seems as though the crew were going to be divided. Moreover it seems as though with all those tanks you are putting in, your boat is going to have a generous cruising radius. Where do you expect to go with her anyway?" "Well, Charlie, she's meant to go out on that man's ocean." "Let's take her across." "You have guessed it at last, my very idea."

"Let's see" says Charlie, (Cont'd on page 112)



The 32-foot stock cruiser Banfield setting out from the Columbia Yacht Club, New York

With the Celebrities at Detroit



Commodore Harry B. Greening, owner of the new Rainbow, with Miss Betty Carstairs of London, England, the challenger for the British International Trophy

In the cockpit of Rainbow VI, Commodore Greening's new 65-mile per hour runabout. Commodore Greening is at the helm; David Reed, his chief engineer, is at the left, and Herbert Ditchburn, who designed Rainbow, is seated at the right

O. K. Hunsacker of Los Angeles, owner of Oh Kay II, and Kay Oh, champion outboards of the Pacific Coast, which won at the Detroit Regatta



*Famous Yachtsmen
from England,
Canada and the
United States Gath-
er to See Gar Wood
Win Harmsworth
Trophy*

M. Rosenfeld



W. D. Edenburn of De-
troit, General Chairman
of Detroit's Harmsworth
Trophy Regatta



George Harrison Phelps of Detroit with
Arthur Bray, famous English motor boat-
man, who came to this country to attend
the International Race Conferences

The Race Committee of the Yachtsmen's
Association of America with the represen-
tatives of the Harmsworth Trophy. Left
to right: Arthur Bray of London, W. D.
Edenburn, Sheldon Clark of Chicago,
C. F. Chapman, Otto Barthel and C. E.
Sorensen of Detroit





Practical Knots and Splices



An Excellent Treatise on the Art of Tying Knots and Handling Lines. Simple, Useful and Ornamental Rope Work of All Kinds Fully Explained and Illustrated

By CAPT. J. N. PATTON

Part I

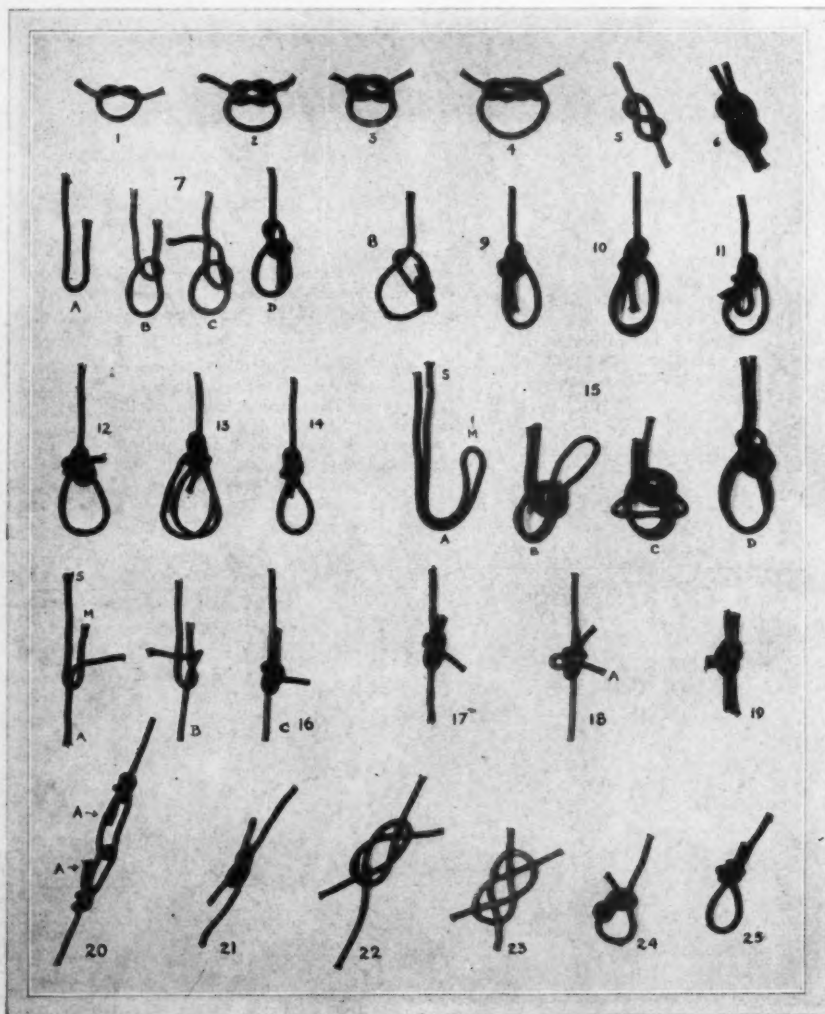
DURING the World War I was in command of a naval experimental vessel. My deck crew, with the exception of three marine men, consisted of lawyers, chauffeurs, students, etc., but no real sailors. While fitting out, one of the seamen dropped one end of a life boat, damaging it through his lack of knowledge of how to make a boat-fall fast. Later, while entering a dock, another sailor took a turn around a mahogany rail with a spring line instead of making fast to the

bits. Result, ten feet of rail torn out and orders from me that liberty would cease for all hands until they had mastered nine of the practical knots and two splices. It was tough on the boys but they could then tie knots that were safe and would not endanger life.

There are 517 different specimens and these will be shown by several hundred illustrations, with explanations how the practical knots, splices, hitches and bends are made and how used. Some

of these knots are known by different names in other countries. For those who wish to learn the practical and useful knots and splices and will follow these articles, please bear in mind the following: the end of the rope to be tied or used will be called the moving part and the body of the rope the standing part.

Always allow plenty of end when tying a knot. Any knot will slip a certain amount under strain. To crown a knot means one made on top of another. We shall begin with the simplest knots, the figures referring to the illustrations. 1. Overhand: This is the foundation of the Square or Reef, Granny and Surgeon's. 2. Square or Reef. With the two ends of line to be tied, make an overhand knot and crown with a reverse overhand. If both ends come out of the loops parallel with the standing part, it is a square knot—if not, you have forgotten to reverse the second knot and have made a "Granny." If so, untie and try again. 3. Granny: An overhand crowned with a similar overhand. This is a very untrustworthy and tricky knot and should never be used. 4. Surgeon's: A double overhand crowned with a reverse overhand and ends coming out parallel with standing part. This knot is used only by surgeons in operations. 5. Figure Eight: This knot has but little use except to occasionally tie in the end of halyards, gantlines or other ropes to prevent same from reeving through blocks or sheaves.



6. Double Figure Eight: This is made the same as Figure 5 with two parts of line. 7. Bowline: Hold standing part in left hand and end of rope in right, allowing enough bight or slack between both hands for the size of eye desired. 7A: With left hand make loop or half-hitch with standing part over end in right hand. 7B: At the same time shifting left hand to hold hitch in position. Then with right hand pass end down and under (right to left) standing part. 7C: And up and down through hitch parallel with its own part. 7D: This is the safest and most used knot on shipboard. It will never slip and is easily untied by bending back the standing part and slipping the loop of knot over same. Its uses are many as, temporary eyes in lines and hawsers, temporary boatswain's chairs to send a man aloft, bending hawsers together, etc.

8. Running Bowline: After mastering the bowline it is a simple matter to tie one around the standing part of a line. It can be used to slip over the end of a spar or other object in water and haul same aboard.

9. Jam Bowline: Made similar to the bowline but with additional turn in body of knot. Safe but will jam under strain and hard to untie.

10. Fool's Bowline: Used by some for boatswain's chair. This knot is unsafe as the second loop is likely to loosen body of knot.

11. Painter's Bowline: This is made the same as the bowline but with an additional shorter loop through the body of knot. When used as a boatswain's chair, this extra loop is to be adjusted around a man's chest, allowing both arms free.

12. Slip Bowline: Similar to bowline but with a loop of the end tucked under the standing part in the body of the knot. This knot will never jam and is more readily untied even when wet.

13. Double Bowline: Similar to No. 11 but with loops of equal length, easier to sit in when used as a boatswain's chair.

14. Fisherman's Bowline: Used by Banks fishermen to snell their hooks.

15. Bowline on a Bight: Take the two standing parts of a bight in the left hand and the end of loop in right hand, allowing enough bight or slack between both hands for size of eye desired. 15A: With the two parts in left hand make a half hitch over the eye in right hand. 15B: Shift left hand to hold the hitch in posi-

tion and with right hand pull the eye part way through hitch and loop same toward you (still holding hitch with left hand) and down over the body of the knot. 15C: And away from you and with the right hand pull slack of eye down through

hitch. 15D: This is a safe knot, will not jam and is used at times to make an eye in the bight of a rope when neither end is available.

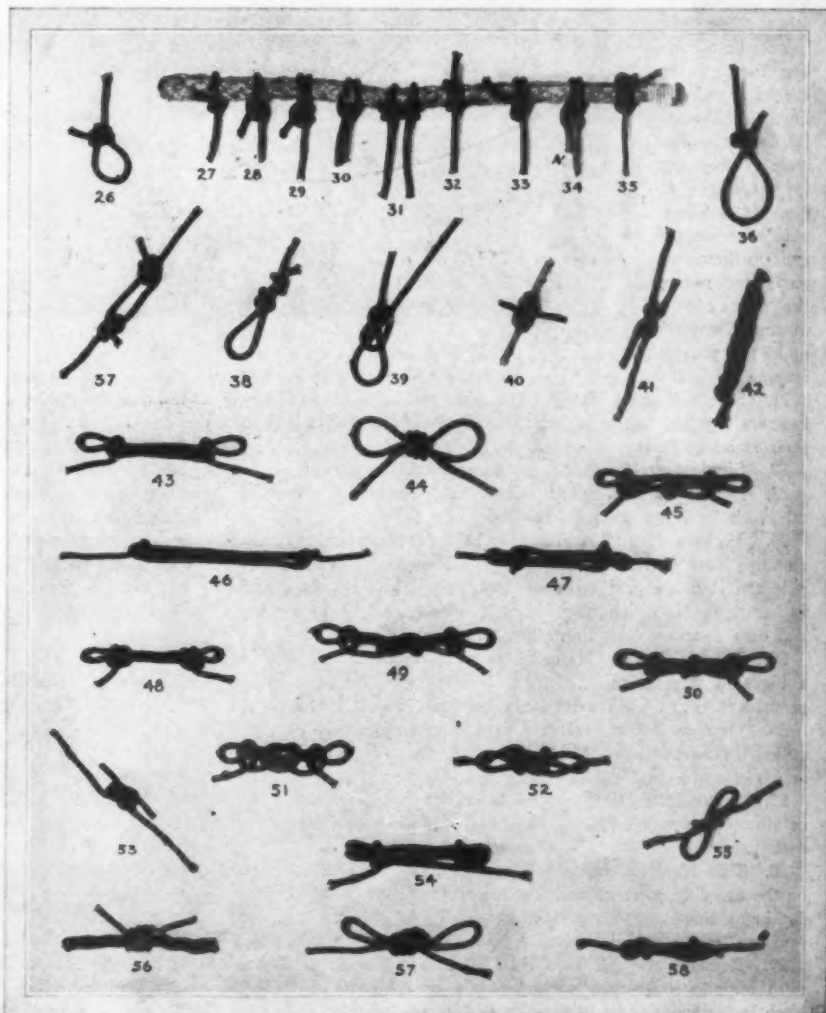
16. Sheet Bend or Weaver's Knot: Grasp bight of one end of line to be tied in left hand and with right hand pass end of other line up through loop. 16A: Then down and under loop, right to left. 16B: And up and under its own part. 16C: This is an excellent knot and will not slip, untied similar to the bowline.

17. Double Sheet Bend: Tied the same as Sheet Bend but with an additional turn around the loop and under its own part. This is an exceptionally good knot to use when lines of varying

THE author of these articles and maker of this collection of knots has followed the sea since 1893; first as apprentice on the old frigate Saratoga, doing duty as the Pennsylvania Nautical Schoolship; later, on various sailing ships, steamers, yachts, tugs, U. S. A. T. Service, U. S. Navy Spanish and World War and U. S. S. B. vessels. During the past 28 years as Master, it has been his hobby to learn and make all the knots, splices, hitches, bends, sennets, turk's heads (three to twenty-five strands), rosettes and original fancy knots, securing some of this knowledge from all parts of the world and from every old salt he met.

It is surprising how very few people ashore can tie even the simplest of safe and secure knots, and, as for afloat, well, the old marlin spike sailor is like the old clipper ship, almost a thing of the past.

This series on knots and splices to be published in MoToR BoatinG, of which this article is the first, will be the first complete treatise on the subject ever published.—EDITOR.



sizes are used, using the larger size for the loop.

18. Slip Sheet Bend: It is tied the same as Sheet Bend but with the end passed back. This knot can be readily slipped when strain is released by pulling on end A.

19. Sheet Bend with two ends: Tie same as Sheet Bend but with two ends of line through loop. This is a handy knot should occasion arise for use of two tackles.

20. Bowline Splice: First make a bowline in the end of one line or hawser and with the end of other line or hawser tie a bowline through the eye of first bowline. This splice is used to bend hawsers together for towing at sea. It is advisable to seize the ends to their own parts to reduce the friction through the water and to prevent fraying of ends.

21. Single Garrick Bend: Recommended by some to bend hawsers together but it is unsafe unless ends are well seized to their standing parts.

22. Single Garrick Bend: Is never used.

23. Double Garrick Bend: Never used except for ornamental work in fancy gangway cloths.

24. Packers Knot: A figure eight knot is tied around the standing part of line and is then pulled tight. This knot will grip the standing part sufficient to hold the loop in shape and is handy for lowering over the side of a vessel, slip over the end of a spar and pull tight.

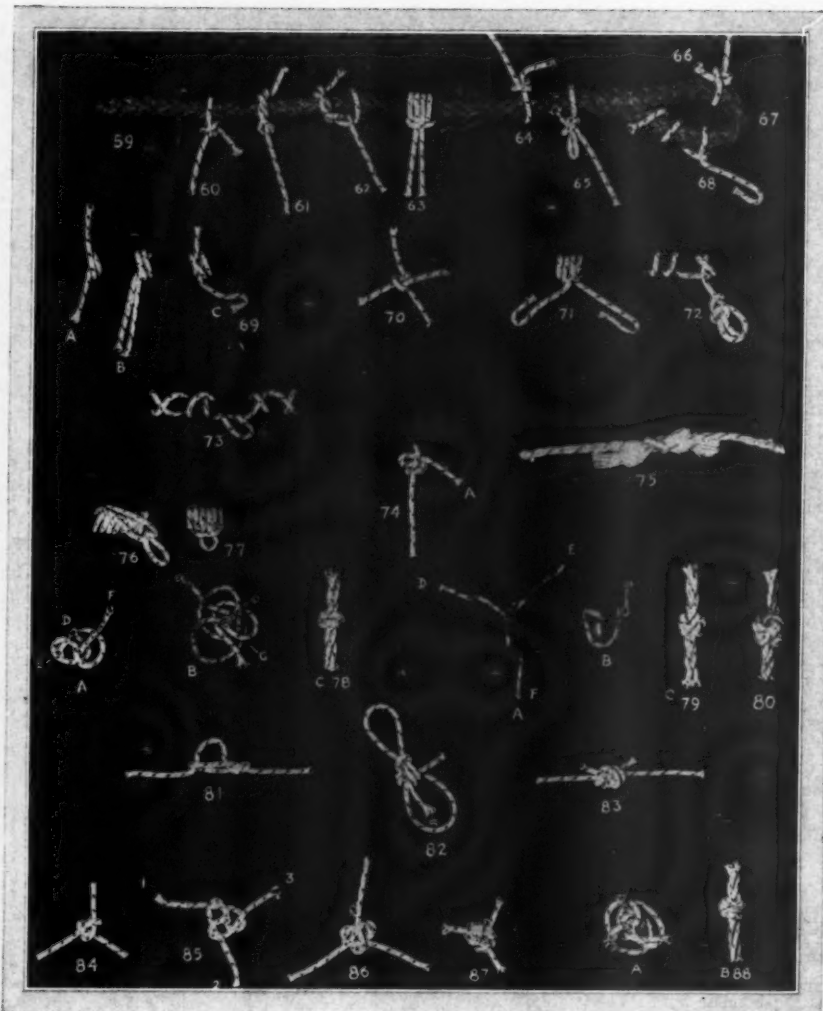
25. Binders Loop: Is made by tying an overhand knot in a bight of line, twine or gut. Will jam tight, makes a quick permanent eye: Used extensively by fishermen in leader gut.

26. Outside Rolling Hitch Loop: An excellent loop when pulled tight around an object. Will jam and will not slip back on its standing part.

27. Single Half Hitch: With the end take turn around spar or line, continue around standing part and back and under its own part.

28. Two Half Hitches: Made as 27 with an additional hitch on the standing part. This is the most common hitch used when making a line fast to a pile, eyebolt or other object. Will not jam and easily untied.

29. Round Turn and Two Half Hitches: Similar to 28 but with an additional turn around a pile or other object. This hitch is far superior to 28 as when pulled tight will grip the pile



and hold its position. Care should be taken to make each half hitch the same, otherwise you will have a round turn, and a cow hitch which is not as secure.

30. Cow Hitch: A loop with both ends passed around spar and through loop. Seldom used on shipboard.

31. Cow Hitch with Turn: Same as 30 but with a round turn of loop around each end. Will jam and will hold knot in position.

32. Clove Hitch: With the end of a line take a turn around spar over and across the standing part, another turn around spar and the end passed under its own part. Much used on shipboard as a temporary fast for small lines.

33. Fisherman's Bend: Make a round turn with end around spar or anchor ring,

continuing the end around the standing part and back and under the round turns. Excellent bend for temporary use and steady strain.

34. Fisherman's Bend and Half Hitch: Made the same as 33 but with additional half hitch of the end around the standing part and a seizing at A. Will not slip, chafe or jam and an excellent hitch for bending a cable any size to an anchor.

35. Studding Sail Boom Hitch: Made the same as a fisherman's bend but with the end brought back and tucked under the first turn. This was used on studding sail booms of sailing vessels.

36. Monkey Fist Eye: Of no practical use.

37. Rolling Hitch Splice: With each end of a line make an inside rolling hitch on the standing part of other line. These hitches can be separated along the standing parts but will not slip toward each other. It is only used to take up any slack in the two ropes.

38. True Lovers Knot: No practical use.

39. Crabbers Hitch: No practical use on ship.

40. Double Marriage Splice: Made by making inside round turn with both ends around each other's standing parts. Safe splice if both ends are well seized to standing parts but will jam under strain.

41. Single Marriage Splice: Similar to 40.

42. Single Strand Braid.

43. Simple Sheep Shank: Made by placing half hitch on either end of a double bight.

(Continued on page 96)



Eleven cruisers crossing the line at the start of the Sheepshead Bay Yacht Club's ocean race

Eleven Cruisers in Ocean Race

Past Performance Rules of the American Power Boat Association Used in 45 Nautical Mile Annual Cruise Contest of the Sheepshead Bay Yacht Club

LONG distance cruiser racing has declined in interest among boat owners during the last year. It is difficult to arouse enthusiasm among enough men to make a success of any contest. General dissatisfaction exists over the measurement rule under which cruiser racing has been done and the most popular rule today is the past performance rule. The American Power Boat Association adopted these rules two years ago and racing under them has been much more successful than under the earlier measurement rule. The theory behind these provides that the previous performances of the boats be used in order to determine their speed and from this information they are handicapped and as a general thing finish closely to the computed time as they should.

This year's ocean race of the Sheepshead Bay Yacht Club was held over the same course and under the identical rules as prevail for the several years preceding. The past performance rule was used and the first and second boats varied by only a few minutes from the scheduled time as based on their previous performances. The most difficult factor to consider in handling a race under these conditions is the weather, as an ocean race can be easily thrown out of gear by a stormy day which makes the handling of the boats ever so much more difficult. The day before this year's race gave promise of a stormy day to follow. A very powerful south westerly gale was blowing all day and boats which ventured out into the ocean reported that it was decidedly rough. The contestants were prepared for a bad day's going, but fortunately the wind shifted during the night

and eased the ocean off so that there was not more than the usual roll apparent.

Eighteen boats had signified their intention of taking part in this race. Last minute withdrawals reduced this number to eleven which actually started. The hospitality of the Sheepshead Bay Yacht Club is well known among cruising men and was in some measure responsible for the failure of the local members of the race committee to be on the job on the morning of the race. Some of the contestants also had difficulty in getting up on time and for these and other reasons the start of the race was delayed by one hour. It was actually eleven o'clock when the starting gun was fired and the closely bunched group of cruisers got away.

The course for this race was laid out in roughly a triangular form so that the starting line is at the bell buoy just inside of Rockaway Point. From here the course swings generally in an easterly direction keeping all the buoys on the dangerous Rockaway shoals on the port hand. Once clear of this shoal the course

follows a direct line to the whistling buoy off Jones' Inlet and on turning this the course goes westerly on another straight leg to Ambrose and Scotland Lightships at the entrance of New York Harbor. From Scotland another direct line leads in again to the finish line making the entire length of course 45 nautical miles.

Usually this race coming about the middle of September coincides with the Equinoctial period which brings storms and bad weather. The race has a reputation for being a

(Continued on page 140)

Photographs by E. Tanare



Paducah, Commander P. J. Downey, Jr.'s Scripps engine cruiser which proved to be the winner of the 45 nautical mile contest



Start of one of heats of stock runabout race which was won by a Chris Craft



A Baby Gar runabout, driven by Mrs. Arthur J. Utz, which won the women's handicap event

Newport Sponsors Big Regatta

Most Successful Racing Event Held in East During 1928—Classes Fill Well for All Types of Racing Craft

Race Summaries on pages 126 and 128

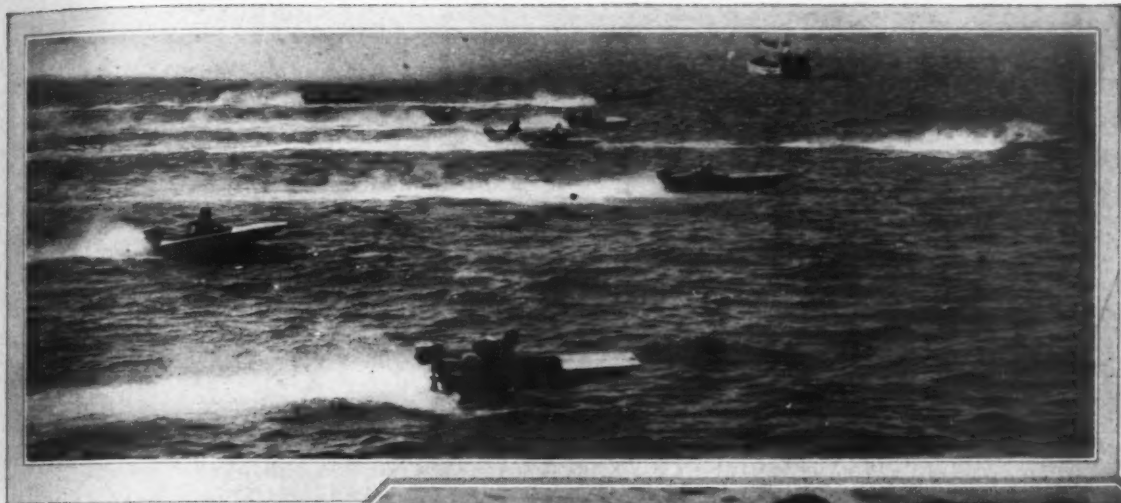
TO Newport goes the credit of holding the only successful regatta of the season in the East. When it became apparent in the early Spring that there would be a scarcity of new racing craft this year such racing classics as the Gold Cup, President's Regatta and other famous race meets as have been held at Boston, Baltimore and elsewhere were called off. However, those in charge of racing at Newport refused to be stampeded by the action of calling off race meets in other localities and believed that if the proper efforts were made that a successful race meet could be scheduled and brought to a successful conclusion. The results of the races a few weeks ago demonstrated that they were right in these assumptions.

Narragansett Bay and especially Newport Harbor for many years has been a mecca for all types of boats and yachts. During the

summer months Newport's Harbor provides anchorage for hundreds of all types and all sizes of motor and sailing craft. The waters of Narragansett Bay have given to many of America's leading yachtsmen their early training in the handling of fast boats, but up to 1927 no effort had been made to hold



A Chris Craft winner driven by Mrs. Sheldon



Photographs by M. Rosenfeld

Over 200 outboards were entered in the various events for this type of boat

Miss Minneford, driven by E. W. Hauptner, winner of the Class B, Free-for-All



a national regatta on these waters. Early last year the Narragansett Bay Regatta Association was formed under the leadership of Dr. Horace P. Beck, assisted by such able lieutenants as E. S. Schriver, W. S. Andrews, R. C. Adams, Robert S. Hayes, L. K. Ebb, J. T. O'Connell and other prominent residents of Newport, and plans were made for an annual regatta on Narragansett Bay. This organization in 1927 organized the successful Newport Regatta. All last year it did much to crystallize and stimulate interest in motor boat racing in New England and adjacent waters. This Association called upon the Regatta Circuit Riders' Club for assistance and co-operation and invitations were extended to several hundred of America's leading motor boat men.

As race courses go over the country, none excel Newport's from many points of view. The value of the co-operation which the Navy Department is able to give can not be figured in dollars

and cents. From a spectator's point of view, the Newport course offers every advantage that might be desired, both from the standpoint of those on shore and the yachtsman who prefers to view the races from his own yacht.

Reviewing the list of events which were scheduled for the Newport Regatta, one finds classes for practically every type of boat which is popular today. The Regatta started on each of the two days with a fifteen-mile race for express cruisers. This was followed by three heats for the Amateur Division of Class A Outboards, three heats for Class B Amateur, three heats for Class C Amateur and three heats for Class D Amateur. On the second day of the regatta the free-for-all classes A, B, C and D replaced the amateur division. Two heats for the 151-inch hydroplanes of the limited class were provided as well as two heats for the unlimited 151-inch hydroplanes. There were classes also arranged for the stock runabouts,



W. H. Vanderbilt driving a Dodge watercar at the Newport regatta

divided into divisions according to the powers of their power plants. As, for example, under 90 h.p., 90 to 120 h.p., 120 to 160 h.p. and not over 200 h.p. Events for all of these classes were held on each day as well as a Displacement Boat Free For All, a Grand Free For All and the Ladies' Handicap Race. Altogether there were forty-nine races scheduled and so arranged that the boats for each class were lining up for the start of their class before the competitors in the previous race had finished. Thus there were no dull spots in the program, as happens



Cute Craft C Horse, the latest creation of the Cute Craft Corporation. This boat makes an ideal family runabout as well as a racer. She is very fast and seaworthy under all conditions

in too many regattas these days. There was action every minute of the time from before noon until sundown.

In the event for stock runabouts of not over 120 h.p., which consisted of two heats of six miles each, Skidaway, owned by J. R. Sheldon, succeeded in winning first place in both heats. Hebg entered by W. H. J. Dyer, finished second and Dart, owned by Frank Wigglesworth, was third.

D. C. Arnold's It won both heats of the race for stock runabouts of not over 160 h.p. Mr. Arnold's boat is a Chris Craft, and as a Chris Craft driven by Bernard Smith finished in second position and another Chris Craft entered by Bert Clark finished third it thoroughly demonstrates the successful performance of this make of boat.

Four other standardized runabouts also took part in the race.

The Free for All race for stock runabouts brought nine starters to the line. In both six mile heats, It, owned by D. C. Arnold, proved considerably faster than any of the other boats in the race. In the first heat, It averaged 39.66 miles per hour and in the second heat she showed speed of 38.03 miles per hour. Betty, owned by L. D. Pierce ran second and Miss Gray Gables, owned by A. H. Waitt was third.

In the displacement boat, Free for All, Commodore C. Roy Keyes of Buffalo, driving his Curtiss Wilgold III, had no trouble in running away from the field, finishing the first six-mile heat in 8 minutes, 3 seconds and

the second in 7 minutes, 22 seconds. Betty, driven by L. D. Pierce, was second and Miss Gray Gables, third.

The 151-inch hydroplanes furnished some of the keenest competition in the entire regatta. Miss Westchester, driven by E. W. Hammond, finished first in both heats, his best speed being 41.54 miles per hour. Sparrow, driven by Elmer H. Johnson of Bennington, Vermont, finished first in both heats of the unlimited class, averaging 40.6 and 40.9 miles per hour. Miss Massachusetts, driven by Lew Savage of

Boston, was second, and Baby Ruth, driven by Stanley Reed of Detroit, third.

Miss Helen Hentschel, driving Skipalong, took both heats of the Class C stock runabouts of under 25 feet in length and not over 90 horse power. Bagheera, driven by J. T. Lippett, was second and Motor Craft, driven by W. J. Dyer, was third.

In the 200 horse power stock runabout class, It, driven by D. C. Arnold, won both heats, her best speed being 39.71 miles per hour; Betty, owned by L. D. Pierce, finished in second place on points, and Chris Craft, driven by Bernard Smith, finished in third place.

Ladies' Handicap race for the perpetual trophy offered by Mrs. Vincent Astor, brought out thirteen starters. All the ladies drove stock runabouts and the boats were handicapped on the basis of their fastest lap. Mrs. Arthur J. Utz, driving Black Beauty, a Gar Wood Sedan runabout, finished first, with Dolphin Too in second

(Cont'd on page 126)



Century Cyclone, driven by Malcom Pope

The workers: Leo Thomas of Boston, William Eldridge of New York, Steve Drakely of Cleveland and Ralph Goethius, Commodore of the RC2



Boating on Arctic Waterways

Forsaking the Small Boat the Author Experiences Further Adventures on a River Journey While Still Traveling Northward

By LEWIS R. FREEMAN

Author of "In the Tracks of the Trades," "By Waterways to Gotham," "Down the Grand Canyon," "Waterways of Westward Wandering," etc., etc.

CHAPTER VII

Northward by the Athabaska
and Slave

LOADING of the steamer and barge for the down-river voyage was not completed until midafternoon of the day following the arrival of the train from Edmonton. Loading meant not only jamming full the interior cargo spaces, but also piling the decks of each craft high with sleds, canoes and lumber. Live stock came on last. A bunch of steers for the posts and missions on the Mackenzie were corralled on the stern of the barge. Two or three wood-cutters' horses were stabled on the blunt bow of the steamer. Sled-dogs by the score, chain-tied, were festooned all over the deck-piled freight.

A second barge full of empty whitefish cases completed the flotilla. This was to go only as far as the mouth of the river at Lake Athabaska, where the cases would be filled with newly-caught fish and brought back on the return voyage. After icing at the Waterways plant, the cases of fish are transferred to express cars and run through to Chicago with all possible dispatch. That such shipments can compete in the American market with whitefish and trout fresh from the Great Lakes is the best testimony to the quality of the famous product of the Athabaska fisheries. The supply of whitefish and lake trout from Athabaska and the still larger fresh-water bodies of Great Slave and Great Bear is all but inexhaustible.

Just before the mooring lines were ready to be cast off word was passed around that the permits should be brought aboard.



A swift chute of the Slave River below Fitzgerald

Promptly the seal on a strong-room of the warehouse was broken and a long procession of deckhands emerged therefrom, each bearing on his shoulder a heavy box. Carefully checked at both ends of the gangway, these were brought to the upper deck of the steamer and deposited in a compact stack outside the smoking-room. Here again each unit was told off and identified by a freight clerk. I have seen a million in bullion put off at Liverpool with half that amount of paper work.

Unable to think of anything else upon which such loving attention could be lan-

guished, I asked the purser if we were taking treasure to the North.

"Well, yes, in a sense," he replied with an amused smile. "Take a closer look at it and you will see."

And treasure it was. The term "permit" as used in the North has no reference, as one might suppose, to hunting or fishing or mining licenses, but is rather the popularly accepted euphemism for the monthly case of liquor each legal resident is permitted to import from the nearest licensed vendor. This makes a formidable shipment by every steamer, especially on the Mackenzie where there are only two regular sailings a season.

When I expressed surprise that a shipment of such incalculable value should be carried on the open deck, the purser explained to me that disastrous experience had proved that this was the only place that was a hundred per cent. safe. No sort of protection had been devised by which the permits could be carried

under cover without being broached. Pitiless and perpetual publicity was the only sure safeguard. 'Tween decks the 'breeds would gnaw through anything short of chrome steel to get at alcohol; in the open every passenger and officer and roustabout was a watchman.

"We have never lost a case, nor even a bottle since we started stowing the permits right out there in the sight of God and man," said the purser with the pleased air of one who basks in the pride of achievement. That was not exactly blasphemy, of course, but it did seem a bit too near boasting for a man to say it without fending off future disaster by touching wood. Also, there was just a little too much of the suggestion of a challenge in the complacent words to allow one to forget them entirely. Why, the fellow was actually implying that the thing couldn't be done! And of course one wouldn't do it, even if he could. And yet . . .

The reverie was broken by a toot of the whistle and the grind of the capstan winding in the mooring lines. A few moments more and we were clear of the bank and shoving along at half-speed down the shallow Clearwater to McMurray Landing. Here the tears and beers of farewell were the order of the hour. Or perhaps I should say the disorder. With some of the trappers and traders faring to the North for from two to five years, it seemed to take a lot of laving and lubricating of eye and throat

to drown the pangs of parting. A bevy of half-breed frailties, all teary and bleary from lingering long with their departing sweethearts in the beer-parlor, mingled their maudlin keening with the throat-throbbing howls of the tethered huskies. All of

which prompted a Liardward-faring trader, unmellowed by alcohol or the clinging arms of a light-o'-love, to explode in cynical epigram.

"They call this the land of strong, silent men," he snorted contemptuously. "Looks to me that this little neck o' the North is more of a sink of weak noisy women."

But under one little corner of the sodden curtain of parting there was a farewell unsmirched by sordidness, undebauched by flesh or the devil. One saw only a flowerlike little flapper with face uplifted to that of a virile youth with a graflex case thrown over his shoulder. Both were white—both very troubled. A Hudson's Bay man volunteered the basic facts in a few choppy sentences.

"Chap transferred here from the Bay year or two ago. Met girl who is clerk to Edmonton office. Good family—reduced circumstances. Dead stuck on each other. Want to get married as soon as B—— can get appointment to post not too hell-and-gone far off. Puts in application and gets McPherson, at the Back of Beyond and then some. Has to jump out this boat. Can't take girl—and



The Athabaska wooding up at Fort McKay. She is a true river steamer type



Fitzgerald, at the head of Smith Rapids, is gloriously free from traffic jams



At Chipewya farming methods verge on the primitive

there you are! McPherson means anything from two to five years, and question now is, will he stick it?"

Sad and pure enough for a movie; and with suspended interest, too. I will unfold the sequel to that mosquito-harassed parting in due course.

We had a spirited race with the steamer Northland Echo, of the rival line, all the way from Waterways to Fitzgerald, at the head of the Smith Rapids series on the Slave. Several similar brushes had occurred during the course of the season, with honors about evenly divided. The

steamer Athabaska River was faster by several miles an hour, an advantage which her rival made up by being able to steer a shorter course on account of her shallower draft. The Echo led us for several hours but when we finally passed her in a broad, deep open reach our half-breed deck hands indulged in a wild war dance of triumph on the roof of the barge. One brandished a broom, another proffered a tow-line and a third

thumbed his fist-smearing nose. Another, to the accompaniment of Rabelasian jest and gesture, shook his ham-like fists at the enemy and offered to punch the noses of any who would do him the honor of venturing within arm sweep.

There was some ambiguity as to whether the threat was directed to the bluff nose of the Echo or to the noses of her crew. But upon another interesting point there was left no room for doubt, once our questing searchlight had flashed its revealing

blaze across the Ajaxian figure on the fish-barge. Big Bateeste Beaulieu, instead of remaining to nurse his wrath and enjoy his memory-restoring Saturday night jag in Waterways, had shipped for the down-river voyage. I extracted what comfort I

could from the fact that all his hatreds of the moment appeared to be concentrated upon the Echo. I was to learn much of that temperamental scion of Beaulieu before the Arctic was reached.

The Athabaska jumped into a comfortable lead and held it until she had to pull alongside a woodpile in the first streakings of early dawn. That was another handicap we labored under. Our

Typical Mackenzie River auxiliary schooner anchored at Fort Smith



Portaging is the only way to pass the mountain rapids of the Mackenzie

steamer was a fearful woodeater, we paying the penalty in a disproportionately greater length of dead time spent moored to the bank putting on fuel. We passed the Northland boat a few hours later at her own woodpile, and positions were exchanged again when the Athabaska wooded up at noon. Then we overhauled her in the broad deep channels of the delta and beat her by miles out through the many-mouthed river to the drift-log-strewn shores of Lake Athabaska.

Not so very long ago as geological time is reckoned the great fresh water body known to the early fur traders as The Lake of the Hills, and now called Athabaska, must have been very much larger in area than it is today. It would have had rocky borders along its southern and western shores, just as it still has along its northern and

(Continued on page 70)



The hardy outboard is popular on the frontier waterways

More Power in Diesels

*Most Compact Twelve-Cylinder Vee Type Engine Delivers
750 h.p. on Weights of 25 Pounds per Horsepower*

THERE has been some desire on the part of yachtsmen to increase the speed of diesel powered yachts which has resulted in the development of light weight diesel engines by the Treiber Diesel Engine Corporation, located at the New York Shipbuilding Plant of the American Brown Boveri Electric Corporation, in Camden, New Jersey.

Engines were recently completed for a yacht building at the Herreshoff Manufacturing Company for H. S. Vanderbilt. The vessel will be 150 feet in length, 24 feet beam and 6½ feet draft. These engines are perhaps the lightest weight diesel engines that have been built thus far. They are V-type, twelve cylinders and develop 750 h.p. continuously at 700 r.p.m.

The diesel engine is the heart of the yacht. It must of necessity be reliable and sufficiently rugged to stand the continuous operation required of it.

The light weight in these engines is made possible by utilizing the experiences gathered by the engineers of the Treiber Diesel Engine Corporation. During the past fifteen years they have been engaged in the business of designing and building diesel engines. During that time the engineers of this organization have been responsible for the designing and building of thirty-five different sizes and types of diesel engines, each new design resulting in some additional knowledge which could be utilized in the next model, the result being that the weight per h.p. has been reduced greatly from 175 lbs. to less than 25 lbs. per h.p. During the past few years there has been considerable progress in metallurgy and this has contributed in reducing the weight without impairing the reliability and long life of the engines.

The newest model just completed, weighs 17,500 lbs. These engines are capable of 750 h.p. continuous at 700 r.p.m. and on the test stand were operated at full load for thirty-six hours, with an additional two hours at

830 h.p. and pulled 950 h.p. for short periods.

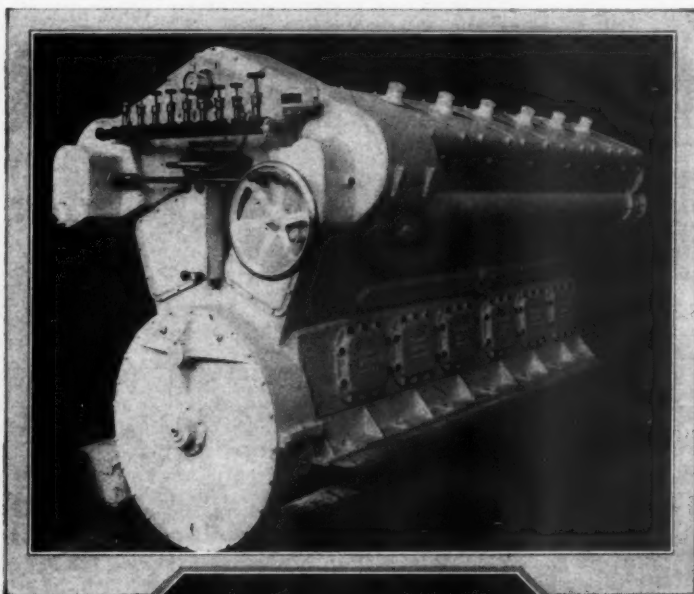
They are made of the finest material that can be obtained, each part being selected with a view to the service it is to perform. The crankshaft is bedded into the base casting which is extended to enclose the flywheel and jacking over mechanism. The thrust bearing is mounted in a housing integral with the engine, as shown in the picture. The crankshaft is forged in one piece, is hollow bored and carefully balanced. Flywheels are usually made of cast iron. However, in these engines the flywheel is made of cast steel on account of the high stress on a flywheel running at high speed. The bearing shells are made of forged steel lined with the best grade of tin base babbit without using anchor

grooves. The connecting rods are made of chrome vanadium steel, heat treated. Pistons are of nickel aluminum of a proved design, fitted with Double Seal piston rings and oil drain rings. The water jacket castings and also the cylinder liners and cylinder heads are made of a high strength ferrous metal of about two and one-half times the strength of cast iron. All parts coming in contact with salt water are of ferrous metal to reduce the deterioration from rust and electrolysis. All moving parts are entirely enclosed and all bearing surfaces are lubricated by force feed lubrication.

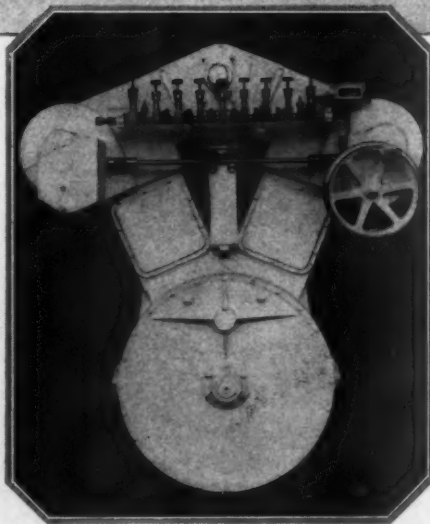
The enclosed feature of this engine, coupled with the differences in detailed design which have been incorporated, result in a very quiet operating engine. Furthermore, these engines are so balanced as to cause no vibration whatever.

Maneuvering is accomplished with ease. A telltale is built into the engine with the position of the maneuvering mechanism always showing in front of the operator as to whether the engine is set for going ahead, going astern, or stopping.

The Treiber Diesel Engine Corporation
(Continued on page 132)



Quartering view of the new Treiber diesel engine showing its cylinder arrangement



The Amateur Boat Builder

A Series of Helpful Articles Teaching the Correct Methods of Boat Building from Start to Finish, Intended Particularly for the Unskilled Amateur Who Is Building His Own Boat

By H. W. PATTERSON

Part V—Bending and Fitting the Frames

THE principal members of the transverse framing of a boat are called timbers or frames; the latter being the most common name. These are connected across the keel with floors.

There are two distinct types of framing, classed as sawed frames and bent frames. As the name implies, sawed frames are sawed or otherwise cut to shape. In order to have strength it is necessary to saw these frames from natural growth crooks or knees, of such shape that the grain follows closely the curve of the frame; a condition very difficult to satisfy. The practical alternative is to build them in sections, and double, so that the joints of the various sections are properly shifted. (See Fig. 24.) This naturally results in a large and heavy frame requiring considerable labor to build. Large vessels require them exclusively as the frames are far too large to bend, but they are seldom used in small yachts except in combination with bent frames or for some special type of construction. There is a special type of sawed framing sometimes used to advantage for light runabouts, and occasionally for larger boats, especially of the V bottom type. It resembles the Isherwood system of steel ship framing and I will have something to say about it later.

Bent frames are made of straight grained material, which is steamed until pliable and then bent to the required shape. As compared to ordinary sawed frames they have the advantage of simplicity, strength and smaller size which allows more useful room in the boat. It is possible to bend satisfactory frames up to 3 by 3 inches so this type will naturally be selected for any size boat the amateur will undertake to build, unless it is of some special construction. When a quick bend is required for the bilge and the frames are rather large they may be split part way with a saw as shown in Fig. 24, which makes bending easy, and after the fastenings are in it is very stiff.

The best material for bent frames is straight grained white oak, and it pays to be sure it is really white oak, as there are many varieties which are not so good. Rock elm and second growth white ash are also suitable, especially for small frames, as the grain is close and they bend very well, but are not so readily obtained. The most suitable wood is cut from the butt of the tree and it should not be too dry. If cut in the winter when the sap is down it may be worked into frames almost at once and will be fairly dry by the time planking is done, as steaming drives out the sap and hastens the seasoning process.

When getting out the material for frames allow

plenty of length. For the boat I have been illustrating they should be a foot or more longer than the actual half girth, especially if they are to be bent over a form and fitted cold. Various reasons for this will be apparent later.

As a rule the frames have greater moulding than siding; that is, the dimension is greater athwartship than it is fore and aft. Therefore if it is necessary to rip them out by hand, have the material planed to the smaller dimension. For the very best results the log should be quarter sawed so that the plank shows edge or comb grain. Then if the plank is planed to the siding dimension of the frames, as suggested above, we get an arrangement of the grain favorable for bending, and much less liable to split when the fastenings are driven. See Fig. 25. The left hand illustration shows the annual rings at right angles to the nail, as it should be, although it is a refinement not given much attention in many boat shops. Plane all four sides and if the frames are square mark them in some manner so that they may be bent with the grain running as noted above.

In order to steam the frames we need some kind of a box to enclose them and a source of steam. Build the box of $\frac{3}{4}$ inch material well cleated and fastened together, and caulk the seams with cotton to make it reasonably steam tight. There should be a sliding door at one end that can be quickly opened and shut, and cleats across the bottom inside, about every 18 inches, to keep the frames clear so the steam can get at all sides. As it may be necessary to steam other members, such as the forward end of the garboard strake or a coaming, it is a good plan to make the box large enough for that purpose. A box about 6 or 8 by 12 inches and two feet longer than the longest frame should be about right. The steam connection should be at the end opposite the door.

Steam can be generated in any makeshift arrangement of boiler and fire. Very little pressure is required; in fact, low pressure wet steam is the best, so that a discarded cylindrical tank of fifteen or more gallons capacity answers very well. However, I leave it to your ingenuity to devise something with such materials as can be procured. The proper steaming time will vary from a half hour to an hour, or possibly more, depending on the side of material and the efficiency of the steaming outfit.

There are two general methods of framing a boat with

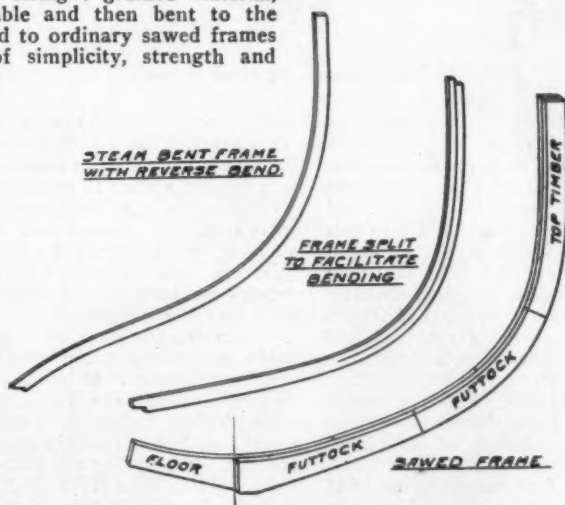


Fig. 24—Method of building up sawed frames

bent frames and each is subject to modifications. The better one to employ in each case depends on the general conditions. If the form is easy and the frames small (not more than 1¼-inch moulding) they may be bent directly in the boat. The principal objection to this method is the natural tendency of the frame to straighten out. Of course they do not actually do this as other members of the structure hold them in shape, but the strain is there nevertheless. The usual method is to bend the frames over a form of some kind and allow them to dry out for a day or two before fitting. Let us consider the latter method first.

Fig. 26 shows a simple bending form which should have sufficient width to accommodate several pairs of frames. The end of a steamed frame is pushed under pipe A, then pulled over and down and secured to pipe B with a loop of heavy cord. The hot frame should be transferred quickly from the steam box to the form and bent without loss of time, as it cools rapidly, yet the actual bending must be deliberately done so that the wood fibers will have a little time to adjust themselves to the new shape. A little practice will indicate about how fast the operation should be carried out.

Frames of fairly large size may show a tendency to splinter on the outside where the wood is stretched. To overcome this in some measure, a strip of sheet iron about 1/32 inch thick and the width of the frame is placed on the outside, and bent with the frame. It is secured to the upper end of the frame and the lower end is held by a wedge driven under pipe A. In commercial shops they have these straps fitted with a forged hook at one end that fits over the upper end of the frame, but for amateur needs a clamp screw answers the purpose. A heavy coat of linseed oil applied to the frames a little while before steaming also seems to help the bending operation. Leave the frames on the form for a few hours to set and when taken off nail on one or two stay laths to hold them in shape until ready to fit them in the boat.

When a frame is taken from the form it will straighten out considerably, as indicated by the dotted line in Fig. 26, and the form must therefore be made with greater curvature to compensate for this. To obtain the required shape for the form bend a piece of soft wire, heavy enough to hold its shape, inside the ribbands about amidships, to get the actual shape of the finished frame, and then build the form with considerable more curve, but of the same character. The extra amount of curve to be allowed can only be arrived at by experiment as the size of frame, character of curve and condition of the material and the steam are all factors affecting the matter. It is very easy to take some of the bend out, as will be described later, but it is impossible to increase it. For this reason the frames when taken from the form should have more bend than they will have when finished, which allows for fitting.

The amount of shape given a frame can be modified to a considerable extent by the distance pulled over in the bending operation so that several pairs of frames can be bent on the original form. Then the form can be

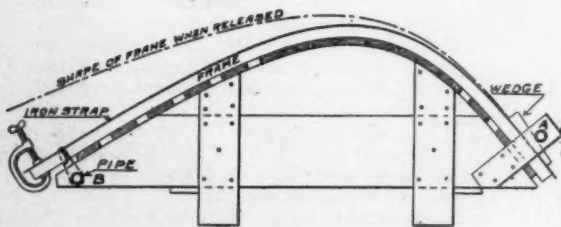


Fig. 26—A bending form which can be made to accommodate several frames at once. It should curve more than the shape desired

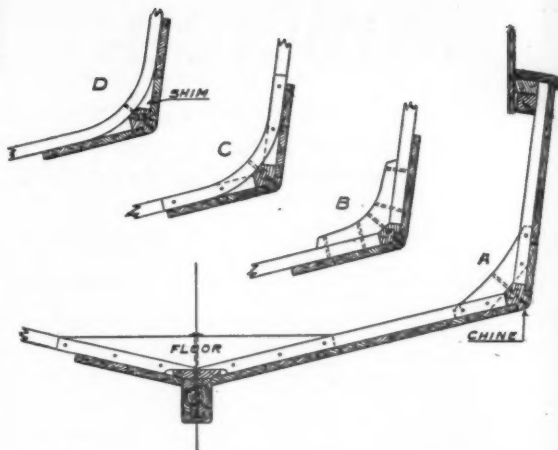


Fig. 31—Four ways of connecting frames at the chine in vee bottom boats

altered by padding out in the center, thereby increasing the bend, or padding on the ends decreasing it. Thus, with the various controls at our command we can bend nearly all the frames for a boat on one form. Exception to this will be found as we work forward and the frames become almost straight.

To bend these, or any others that the regular form is not suited for, we can resort to another method, shown in Fig. 27, which, of course, can be used for the entire job if desired. An advantage of this method is the opportunity which is given to nail down extra cleats to wedge against if the frame shows a tendency to spring away from the form. Either saw out a form and

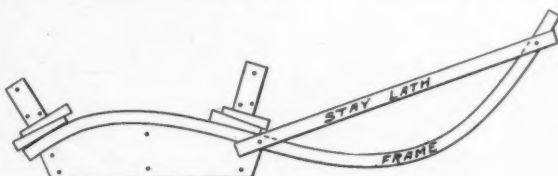


Fig. 28—Bending reverse or S curves in frames

nail it to the floor (A) or nail down a series of cleats (B). The latter is the simplest and, all things considered, the best, as it allows more scope for modifying the bend. It is a simple matter to rearrange the cleats or blocks can be tacked to their faces, making the bend greater or less. When cleats are used and the bend is considerable a strip of wood should be bent around the cleats first, otherwise the frame is apt to break at a cleat. When frames are bent in this way stay laths are nailed on at once and the frame removed to make way for another.

When frames have an S shape the principal bend is made first and secured with stay laths, then the other end is restreamed and bent. See Fig. 28. Rags must be tightly packed around the frame where it enters the steam box. Professionals often bend an S frame in one operation, but it requires skill and practice and it is better for the amateur to make two shifts of it.

FITTING FRAMES COLD. When ready to frame out, the first job is to mark the top of keel or keel batten and the ribbands, for one side of each frame. These stations have been marked on the keel, and as the moulds are square across we simply spot the proper distance from the nearest mould, on several of the ribbands; then bend a thin batten to the spots and mark all the ribbands.

It is customary to begin framing about amidships. In the first place they are generally the easiest to fit, having an easy form and no bevel, so that the builder gradually works up to the more difficult ones with a little experience and practice behind him. Moreover, if a frame is too straight it may answer for some place further forward or if too crooked it may do further aft, and is therefore not wasted.

Remove the stay lath from a suitable frame and place it approximately in position against the ribbands on the inside. Remember, it should have more bend now than the boat requires. Move it up and down until a position

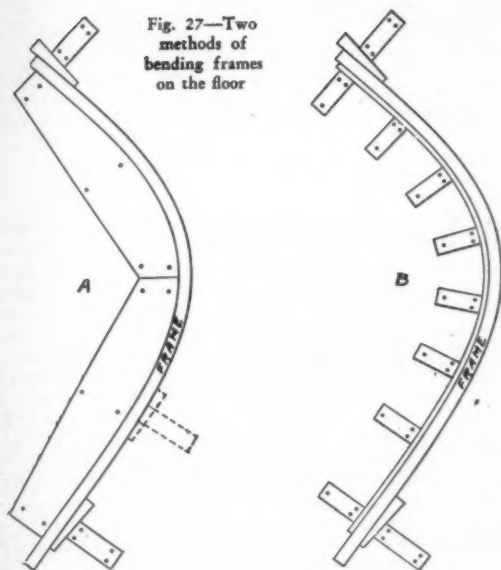


Fig. 27—Two methods of bending frames on the floor

is found where it seems to fit best, making due allowance for opening out, or straightening the curve. One reason for extra frame length is now apparent.

Note carefully what change in shape is required and gradually open out the frame, working from the lower bilge up, with frequent trials in the boat until a fit is obtained. If the frames are light much of this can be done with the hands, assisted by the feet or knees. If too stiff to handle in this way a device shown in Fig. 29 is used. Two cleats are securely fastened to a post or any convenient place and the *modus operandi* is clearly indicated by the drawing.

At first the frame is lapping over the keel and therefore cannot lie against the lower ribbands, but when the frame is nearly a fit, the heel of the frame should be cut to suit the conditions at that point and the fitting completed.

When the frame will lie naturally against all the ribbands without straining, make a duplicate, then secure it in place by nailing the heel permanently to the keel and nailing through each ribband into the frame. These nails are generally toed through the upper corner of the ribband and the heads left so that they may be headily drawn, or if the ribband is small they are driven square through. The nails securing the heels of frames to the keel may be ordinary galvanized wire nails or boat nails. They are unimportant as the main fastening is through the medium of floors.

As we get away from the mid-section it becomes necessary to bevel the outside of the frames so that the planking will have a bearing the full width. The amount necessary can be measured, marked on the frame at each ribband and the wood removed with draw knife and plane.

The actual fitting of a frame is difficult to describe, as there can be no arbitrary sequence of operations, and the technique can only be acquired by practice and good judgment. It is purely a matter of straighten and try until it fits. The experience gained in actually fitting a few will be of more value than reams written about it. The logical procedure for the amateur builder is to bend only a few frames at first and fit them in the boat. You will quickly learn what is required and what can be done in altering their shape. Of course it is possible that a frame may fit without any manipulation, which is purely a streak of luck. Do not be discouraged if you spoil some. Professionals do, from one cause or another, so

if you get two good frames out of three steamed you will be doing very well.

Frequently a frame berth is obstructed by a mould and if it happens to be at a place where the form is changing slowly, fit it as near the mould as possible and shift it to its proper place later when the mould is removed. If it comes where the form is changing rapidly it is better to postpone fitting it until the mould is out of the way. Particular pains should be taken with the frames that carry the water-tight bulkheads, to have them square across the boat and beveled properly. If the frames are very light it is a good idea to increase the size of the bulkhead frames in order to provide better fastening for the bulkhead.

A modification of the above method may be employed for frames that are not too large and have little or no bevel. The frame is bent on a form similar to Fig. 27; secured with a stay lath or two and fitted in the boat without waiting for it to dry out. Professionals frame out a boat very quickly in this way, even bending and fitting frames of S shape with one steaming.

FITTING FRAMES HOT. Let us next consider bending frames directly in the boat, which is a quick and practical method if they are not too large. When this is contemplated it is advisable to make the ribbands a little larger than for frames fitted cold, as we depend on them more to hold the frames. In this case the heel of frame is cut to fit the keel before steaming. As the ribbands prevent fitting the heel direct, the safest way is to make a template of thin wood about a foot long and cut the frame to it.

Except for very small boats, two people are required to fit frames by this method; one inside and the other outside the boat. A number of iron clamps, opened approximately right, and a hammer should be at hand and we are ready. Get the hot frame to the boat as quickly as possible, press it into the bilge so that the lower part lies on the battens and nail the heel, the man outside helping to hold it meanwhile.

Now place your foot or knee or hand against it on the inside and pull the head over and in, bending it considerably more than the finished shape, then push it back against the ribbands and note the result, especially in the lower bilge. Repeat the operation as many times as required, working from the bottom up, until the

frame lies comfortably against all the ribbands in a fair curve, and in its proper fore and aft position, shown by the marks on the ribbands. As the work progresses and it is seen the frame is shaping up satisfactorily the outside man, working from the bottom up, secures it to the ribbands with clamps.

A clamp should not be used to draw the frame to a ribband except very moderately at the head. The frame should be given excess bend each time so that it is necessary to straighten it a little when pushed back against the ribbands, which treatment causes it to lay close to the bilge ribbands and minimizes the tendency to straighten of itself. Where the frame requires a bevel it is twisted

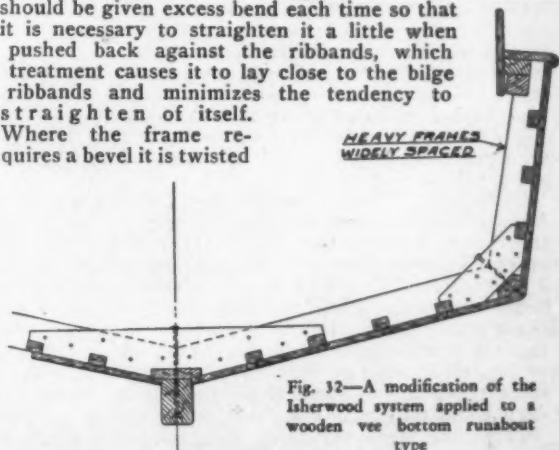


Fig. 32—A modification of the Isherwood system applied to a wooden ver bottom runabout type

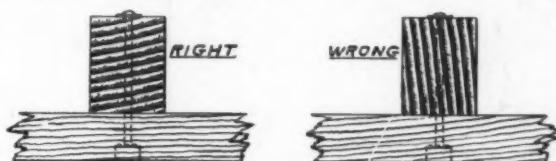


Fig. 25—The logs for the frames should be quarter sawed, giving a grain favorable for bending

in during the bending operation. See that the frame is to the marks, nail through the ribbands, remove the clamps and you are ready to proceed with its mate.

A modification of this method may be advantageously employed when the frames are too large to be handled in the manner just described. The ribbands must be fairly large, as they are called upon to take some strain. The frame is bent inside of them and secured temporarily with clamps, but is not fitted at the heel or beveled at the time of bending. The excess bend which is always required is obtained by padding the ribbands top and bottom, gradually increasing the thickness of the pads both up and down from the bilge. See Fig. 30. Allow the frames to remain like this for a while to dry, then fit and bevel them the same as cold frames. A practical procedure is to bend a batch of frames the last thing in the afternoon and fit them the next day.

The foregoing instructions apply to framing suitable for either single or double carvel planking, which sufficiently covers the requirements for most boats. However, batten seam planking is occasionally required which adds some complications. These battens must be flush with the outside of the frame in order to provide support for the planking between battens. To accomplish this the moulding of the frames must be increased an amount equal to the thickness of the seam battens and the battens let into the frames as the planking is being done.

An alternative way is to attach strips of some light wood, the width of frame and thickness of batten, to the frame and bend them together. Of course this can only be done with small frames fitted hot, when the bevel can be twisted in. Later, when the planking is being done, short sections are cut from these liners to suit the battens. The short pieces left between battens are secured to the frames with small wire brads.

This method of bending the liners with the frames, although difficult, is much the better. The only advantage of batten seam planking over double planking is a slight saving of weight and making the liners of light wood furthers the savings. Also cutting notches in steam bent frames, especially on the outside, weakens them to a serious extent even though a proper area of wood remains. All matters considered, I would not bother with batten seams in the type of boat now under consideration. When the framing out is finished the floors are fitted and this job should be done before any moulds are removed.

FLOORS. Floors are members of the transverse framing which serve to connect each pair of frames together and secure them to the keel. They are made in various ways, several of which are shown in Figs. 9 to 15, Part III of this series. Undoubtedly the best floors are made of oak or hackmatack crooks of such shape that the grain follows the curve. However, where there is little deadrise or the floors are deep as in Fig 9-B or Fig. 15, straight grained oak answers just as well. In some types and in some places the floors can be made deep enough to form the cabin or cockpit floor beams. Yellow pine does very well for such deep floors but

should be thicker if substituted for oak.

The thickness or siding of floors should be somewhat greater than the frames for strength, and to compensate for the rather large fastenings passing through them. They should be fairly deep in the throat (two or three times the moulding of the frames) and extend well out into the bilge, tapering to the same moulding as the frames at the ends. They are beveled in the same manner as the frames so the planking will have good bearing the whole width.

Floors may be fitted either on the forward or after side of the frames as indicated on your construction plans. It is somewhat simpler to fit them on the forward side in the fore body and vice versa aft due to the direction of the bevel but is not as good for the connection to the frame. Sometimes floors are fitted on top of the frames, which for many reasons is poor practice.

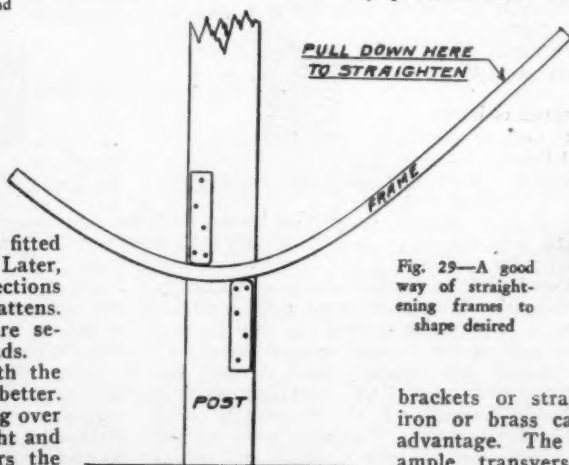
The easiest way to get out the floors is to make templates of thin wood. Make each side separately, lap them at the center and fasten together with tacks or screws. It is only necessary to obtain the shape for the lower edge, the top being lined out on the floor material with a batten. After a template has served its purpose for a floor it can be taken apart and refitted for another place, thus saving time and material.

The simplicity of having the floors on that side of the frame nearest the ends of the boat is now apparent. In the fore body, for instance, the template is made to fit the forward side of the frame, the floor made like it, and the bevel is cut starting at the side adjoining the frame, all of which is very simple. If the floor is on the other side of the frame it must be cut somewhat larger than the template to allow for the bevel, which is more troublesome. The latter way provides more bearing surface be-

tween frame and floor and more wood to take the fastenings and is therefore stronger.

In the way of obstructions such as stem apron, shaft log and stern framing the construction of the floors must be modified accordingly. Often

Fig. 29—A good way of straightening frames to shape desired



brackets or straps of galvanized iron or brass can be worked to advantage. The requirements are ample transverse strength and adequate fastening to the backbone. Special arrangements of the

floors are also required in way of the engine beds, which matter will be taken up later in connection with some notes on engine foundations.

Floor fastening is determined by the general fastening of the boat. When it is galvanized iron the frames and floors are fastened together with three or four galvanized boat nails, each side driven through and clinched, and the floor is fastened to the keel with one through bolt either riveted or set up with nut. If there is considerable depth of wood, drift bolts may be used. If the fastening is copper the frame fastening would be copper nails (wire or cut) riveted over burrs, and the keel fastening, through copper rod riveted, or bronze bolts with nuts. Copper drift bolts are of little value, so at any place where a through bolt is impractical galvanized drift bolts can be used but should not be close to any copper. When there is a center keelson the floor fastening to keel is omitted until (Continued on page 134)

SMALL MOTOR BOATS

Their Care, Construction and Equipment

A Monthly Prize Contest Conducted by Motor Boatmen

Questions Submitted for the December Prize Contest

1. Describe and illustrate simple methods of providing ventilation to enclosed spaces about the boat to keep them dry and sweet.
(Submitted by A. P., Bronx, N. Y.)

2. Discuss reasons why an engine should be or should not be placed off center in an auxiliary craft.
(Submitted by G. P. M., Princeton, N. J.)

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Aquaplaning for Thrills

(The Prize-Winning Answer)

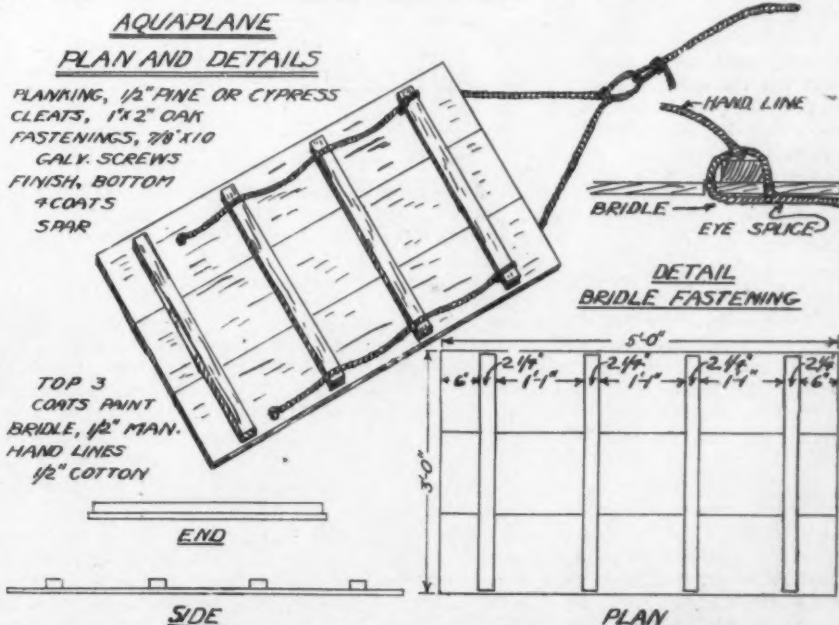
THE term aquaplane may be applied to any sort of a board, rigged to be towed behind a motor boat in such a position that a person may ride on it. The original aquaplane was probably an old cellar door towed behind a boat that could make about ten knots with the plane. We would not be far amiss in giving the credit for its invention to some young lad who had seen the real thing or pictures of the surf board of the Hawaiians.

Aquaplaning is good sport, simple, safe, healthful and inexpensive and full of thrills. It is fine exercise for the muscles and the lungs. Practically every muscle in the body comes into play during the course of riding the plane and you will breathe deeply, whether you wish or not. The first requisite for aquaplaning is to be a good swimmer. When you get a spill you must swim until the boat's crew can haul in the plane and put about to pick up the rider.

Any boat capable of a speed of 10 miles an hour can handle a plane satisfactorily, and the thrill increases about as the square of the speed up to 20 miles. For stunt riding and comfort 20 miles an hour is about the best speed. Above this speed the stunt fun decreases. The action of the plane becomes too fast, the wind resistance must be fought and a spill means an uncom-

fortable wallop when you hit the water. For straight riding any speed that you can stand hitting the water at is allowable.

There are two general types of aquaplanes, the batten door type and those fashioned after the surf boards. Fifteen years ago when aquaplaning was in its infancy, we had to design and make our own but now you can buy them ready made. One particular model is made of balsa wood which floats like a cork and weighs next to nothing. However, it is not the buoyancy of the material of which the plane is made that gives it the action. It is the planing effect over the water, and a plane of non-buoyant material would plane after it had gotten up to speed.



This simple aquaplane of W. B. M. is easily constructed and will afford great sport

The price of the manufactured article is an item and you can make a plane that will be just as satisfactory in every way at a cost of only a fraction of the store price.

In the batten, door type, a size of approximately 3 feet wide by 5 feet long, made of $\frac{1}{2}$ inch pine, cypress or cedar has been found very satisfactory for stunt riding. This plane will carry two riders comfortably and is easy to manage. Our aquaplane is made of three $\frac{1}{2}$ by 12 inch pine boards screwed to four $\frac{3}{8}$ by $2\frac{1}{4}$ inch oak cleats. The end cleats are 6 inches from the ends and the remaining space evenly divided by the two inside cleats. These wide boards shrink quite a little on drying out which allows the water to spurt up between the cracks causing a slight reduction in the planing action, but we think that the added thrill of the water spurting up around the rider more than offsets the loss. On the other hand, a plane made of close fitting dry boards would swell to such an extent when wet that it would buckle and pull the fastenings loose. Should water spurting up between the cracks be objectionable use narrower planking, thicker battens, and batten the seams.

It is desirable that the under side of the aquaplane be as smooth and slippery as possible. We greased the under side of our first plane but later found that a well varnished and rubbed surface was more satisfactory and not as messy. It was finished like a table top. All the screw heads were puttied over and the four coats of spar varnish rubbed smooth. The top is painted and a rubber mat added for easy standing.

The plane is towed by a bridle of $\frac{3}{8}$ or $\frac{1}{2}$ inch rope, passed through holes bored in the plane so that the rope comes around the forward cleat and the splice is made so that the bridle leads from the under side of the plane. Leading the bridle from the under side helps to prevent the plane from diving when the rider takes a spill, and gives the board a natural planing position on the water.

Two hand lines, or reins if you are a horseman, are spliced into the bridle eyes at the cleats and knotted every few inches for easier holding. Avoid using a loop for steering. The loop is easier to hold on to but if the rider takes a spill and catches in the loop he will get some ducking.

For faster work and less stunts an aquaplane 2 feet wide by 6 feet long may be used with equal results. Similarly constructed and bridled there is little difference in the action. Wide variations in construction and style are allowable. Some planes are pointed at the forward end, towed by a rope fastened at the point and controlled by a single hand line leading from the point. You will see planes made of inch boards and planes with the forward end rounded or the corners cut off diagonally. Some are so small that they will only plane at high speed and others are like a raft. As long as the plane accomplishes the purpose

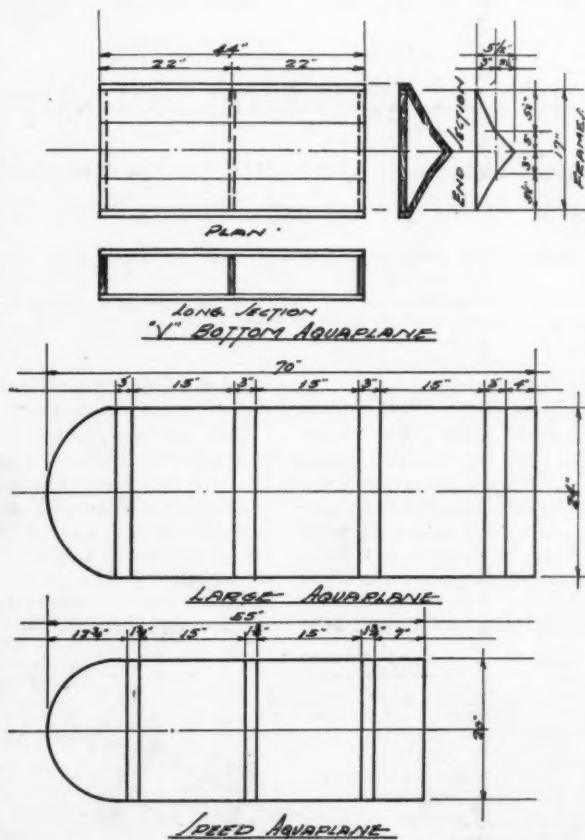
of the owner it is satisfactory, but there is no reason for making the aquaplane heavier than is necessary to withstand the punishment, and the lighter a plane is, the easier it is to handle by both the boat's crew and the rider.

So far, our aquaplaning has been all work but now we can play. Attach about 40 feet of $\frac{1}{2}$ inch rope to the bridle and make the end fast to the stern cleat of the boat. After the plane is in operation adjust the length of the tow line for best results. The length will depend upon the speed of the boat and the general construction of the plane. Riding the plane is a wet proposition. Get overboard in your bathing suit and grasp the plane near the center. As the boat picks up speed draw yourself onto the plane and get hold of the land lines. Carefully observing your balance, assume a standing position on the plane with the feet on or just ahead of the last cleat. The nearer horizontal

you can ride the plane the easier it will tow. Ride straight ahead for a few minutes until you get accustomed to the position. Get ready for your first spill if you haven't had it already. Now gradually bear your weight on the right foot and at the same time pull on the left line. This will cause the plane to skid rapidly to the left until a position nearly at right angles to the course of the boat is reached. Then the weight and pull is quickly shifted to the opposite foot and hand and if you don't spill the plane rares up in a smother of spray until only a few inches of one corner are in the water. For a fraction of a second the plane loses its momentum and then shoots back across the wake of the boat with real speed. If you don't spill at the next reverse you are good but a spill is no disgrace unless you are in a contest. The spill is part of the fun and it is often as much fun to take the spill as to recover. Skidding is the most fun of all but you want to do a few stunts to break the monotony. Take both lines in one hand and try your luck. Then put them in your teeth and if you are not afraid of the dentist

do a little skidding. After you have mastered these, try your balance on a straight away and let go of the lines and see if you can skid. They will pick you up about now, and which you might try standing on your head. It is easy when the plane dives or skids from the weight being so far forward. Backward riding is not difficult once the knack of turning around has been learned and is quite exciting with the water rushing swiftly from in under the plane and spurting up through the seams. Lie on your back on the plane and get a new sensation.

If you want a real thrill after all the rest have grown weary try diving on the plane. You may get a scare instead of a thrill. This stunt requires the good wind of a swimmer and more nerve. With the boat at reduced speed, lie flat on the plane and bear down until the plane (Continued on page 12)



H. S. shows a vee bottom, large and small aquaplanes intended for different speeds

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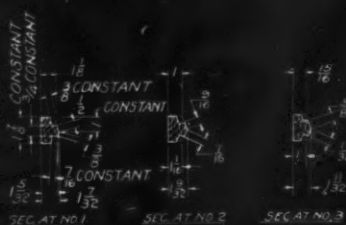
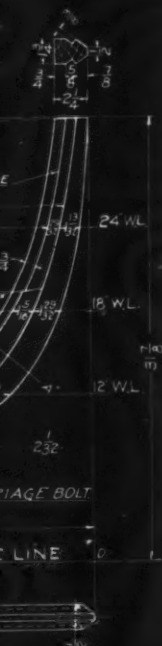
Designed by
L. J. Johnson

Scale: $\frac{1}{4}$ in. = 1 Ft.



BY BUZZ

Foot Outboard Runabout



Baby Buzz

An Outboard Runabout

A Design for a Fast Little Boat Suitable for Family Service and Purposes Other Than Racing

Designed by L. J. JOHNSON

MANY devotees to the sport of outboard motoring enjoy the speed which is possible with these little boats but still are not anxious to secure the maximum racing speed from their engines. They prefer to have a little more comfort in their boats and for these a design such as the sixteen foot Baby Buzz runabout described below will prove interesting. A boat of this kind is somewhat more substantial than the extreme light racing hulls and is intended to carry several persons in comfort and speed.

When built by the amateur builder, care should be exercised to shape all parts carefully and accurately according to the drawings. The description of the twelve and one half foot hydroplane elsewhere in this issue will apply equally well to this boat particularly as far as the laying out of the frames and molds from the table of offsets is concerned. The methods of constructing all boats of this character are closely similar and a description of one will answer equally well for any.

These specifications which follow will give complete particulars concerning the sizes of parts, the methods of fastening, and will answer any questions which might arise.

KEEL: The keel to be made up of two pieces, the inner of mahogany $2\frac{1}{4}$ inches wide and $\frac{3}{4}$ inches thick and the outer piece of oak $1\frac{1}{4}$ inches wide and $\frac{3}{4}$ inches deep. Inner piece or keelson to be notched into the frames and screw fastened to them and have the edge properly beveled to take the edge of the planking. The outer keel to be bent in place after planking and bolted through the inner piece with $\frac{1}{4}$ inch carriage bolts spaced about 8 inches and so arranged that every other bolt goes through a frame.

STEM PIECE: The stem piece to be of Rock Elm and in two pieces properly shaped, as shown in detail and bolted together with $\frac{1}{4}$ inch carriage bolts, beveled and rabbeted to receive the ends of the planks. To be fastened to keel as shown on plans and bolted to the keel with two $\frac{1}{2}$ by 2 inch galvanized carriage bolts. White pine stop waters or plugs to be put through the stem where the rabbet line crosses the point in the pieces.

TRANSOM: Transom frame to be of spruce $\frac{3}{4}$ inches thick and $1\frac{1}{4}$ inches wide except the top piece which is to have a depth of 4 inches below the bottom of the recess cut out for the motor. An oak stiffener $\frac{3}{4}$ inch thick and 10 inches wide to be installed on top of frame, as shown in detail on plans, running the full height of transom and having under it a spruce fill in piece between frames as shown in detail plans. Stiffener to be screw fastened to transom with 2 inch No. 8 brass wood screws extending through transom planking and frames into oak piece. Transom planking to be of $\frac{1}{2}$ inch cedar or mahogany screw fastened to transom with 1 inch No. 7 countersunk head brass wood screws spaced about 2 inches. Height of stem is indicated on the drawing.

FRAMES: Frames to be of spruce $\frac{5}{8}$ inches thick and spaced 16 inches. Bottom members to be 3 inches deep at center line and $2\frac{1}{2}$ inches deep at chine. Side members to be 3 inches wide at chine and $1\frac{1}{4}$ inches at sheer. Members to be riveted together at chine with $\frac{1}{8}$ inch copper rivets. Frames to be connected to keel and chine pieces with $\frac{1}{4}$ inch galvanized carriage bolts.

CHINE: Chine to be made up of two pieces. The inner piece of mahogany $\frac{3}{4}$ inch thick and $1\frac{1}{2}$ inches wide suitably beveled to take planking and screw fastened to the frames. The outer chine piece to be of oak about 13-16 by $1\frac{1}{2}$ inches cut to fit planking and inner piece as shown on drawings, and bent in place after planking is on. Both pieces to be bolted together with 3-16 inch galvanized carriage bolts, spaced about 8 inches apart.

INWALE AND CLAMP: Inwale to be $\frac{3}{8}$ by $1\frac{1}{4}$ inches spruce notched into the head of the frames and screw fastened to them. Sheer clamp also to be $\frac{3}{8}$ by $1\frac{1}{4}$ inch spruce placed on the inboard edge of the frame and to act as a backing piece for the deck alongside of the coaming.

SEAM BATTENS: Seam battens to be of spruce $\frac{3}{8}$ by $1\frac{1}{2}$ inches, screw fastened to stem piece and frames with 1 inch No. 4 brass screws. All seams to be glued with Jeffries marine glue C quality. Entire frame and battens to be faired and trimmed after setting up and given one coat of spar varnish before being planked.

PLANKING: Various kinds of wood may be used to plank this boat. Among those recommended are white cedar, mahogany and white pine. The bottom planking should be 7-16 inches thick, and the side planking $\frac{3}{8}$ inches thick, widths not over 6 inches. However, to meet the varying conditions of sea weather, etc., different thickness of planking can be used. The thickness recommended is, however, the minimum. Planking to be screw fastened to the frames, chine pieces, etc., with $1\frac{1}{4}$ inch No. 7 brass wood screws except through battens where they shall be $1\frac{1}{2}$ inch No. 7 and clinch nailed through the battens with copper wire nails spaced not more than 2 inches apart.

DECK: Deck to be of $\frac{1}{4}$ inch mahogany preferably, but any light wood that takes a natural finish well may be used. Deck to be laid in strips 3 by 4 inches wide and screw fastened to deck beam with brass wood screws with heads set in flush. If it is so desired the decking may be covered with a light grade of canvas set in thick paint and given a couple of coats of good enamel. In the latter case a cheaper grade of wood may be used for the deck material.

Deck beams to be of spruce $\frac{1}{2}$ by $2\frac{1}{2}$ inches sawn to shape and notched for the battens. Intermediate deck beams $\frac{1}{2}$ by 2 inches should be used. Beams to be fastened to side frames in a manner indicated in the plans and riveted to same with $\frac{1}{8}$ inch copper rivets. Intermediate beams to be fastened to sheer clamp and siding by small blocks.

Deck seam battens to be of spruce $\frac{3}{8}$ by $1\frac{1}{2}$ inches screw fastened to deck beams using countersunk head brass wood screws. Seams in decking to be glued with suitable quality Marine Glue.

SHEER MOLD: A sheer mold shall extend for the entire length of the boat and be a 1 inch half round or oval, preferably of mahogany finished natural. To be screw fastened to the planking and if deck is canvas covered, to hold edge of covering. A 1 inch half round of mahogany about 6 feet long shall be placed on the side at the stern about 2 inches above the L. W. L. and parallel to it to act as a rub strip.

FLOOR: The floor to be composed of spruce or pine boards about $\frac{3}{4}$ to $\frac{1}{2}$ inch thick and not over 6 inches wide laid for the full length of the open cockpit, that is from frame No. 3 to transom.

KNEE AND BREAST HOOKS: A small oak knee is to be placed where the transom connects with the keel about $1\frac{1}{2}$ inches thick and about 4 by 3 inches in size, bolted through the

(Continued on page 136)

First Choice of Boat Builders

Mahogany as a Boat Building Material Is Ideally Suited to Many Non-Structural Purposes

Answers to the Following Question Published in the August Issue

State as many reasons as possible why mahogany has an advantage over other woods in the construction of boat hulls.

Mahogany, Most Desirable Wood

(The Prize-Winning Answer)

STRENGTH, long life, hardness of fibre, beauty, a minimum tendency to warp—these are attributes possessed by mahogany. Is it any wonder that mahogany is highly desirable in the makeup of a boat?

Cedar, cypress, teak, and oak have some one or two outstanding features, but it remains for mahogany to have a multiplicity of virtues all of which eminently fit it to be the wood of woods in the building of a boat.

Strange to say, mahogany existed for many years before a modern civilization recognized in it a wood which had many valuable qualities. That the best mahogany comes from countries which were unknown to the ancients no doubt accounts largely for this.

Spanish, Cuban, Philippine and African mahogany stand at the head of a group of wood growths characterized by the name mahogany. It might be possible to run the list into a hundred different varieties, all differing in color, texture and length of planking obtained, but practically all of the accepted mahogany possesses the attributes named above.

Honduras mahogany is often called baywood, a situation which opens up a wide discussion as to where mahogany ends and baywood begins, but this latter named growth has many excellent qualities which fits it for boat building.

Climate, structure of soil and inherent natural growth has much to do with the excellence of mahogany. That which grows slowly in a more or less moist soil possesses a fineness of texture, a uniformity of color bordering on the dark and a strength of fibre which gives it certain advantages over that which is the product of a dry, sandy location.

Despite the graduation of color, it is possible to stain the lightest colored mahogany and to make it comparable in color to the darkest.

The straight grain of mahogany makes it possible to be used in the extremely light planking of racing boats, while the absence of knots allows excessive bending without breaking.

Mahogany admits of being scraped with a minimum of roughing. It can be refinished repeatedly by this method, its color gaining in beauty as the years go by. Even in cases wherein neglect has caused mahogany to bleach under exposure to the sun and weather, it is possible with scraper and with stain to bring it back with little diminution of its first appearance.

Perhaps one of the best qualities about mahogany is its ability to hold fastenings well. It bores easily and clean and nailsickness in mahogany planking rarely comes from age alone.

Little or no filler is needed in finishing mahogany bright. There is likewise a definite smoothness of surface when paint is applied over mahogany.

Mahogany admits of exquisite carving. It is procurable in thicknesses which lends it to heavy stanchion construction. Turnings out of mahogany are characterized by the uniformity of the end grain, in a word, no other wood which is used in boat building fills so many wants as admirably as mahogany.

J. E. M., Norwich, Conn.

Ideal for Planking and Trim

FIRST it should be understood that mahogany should only be used for certain purposes. Refer to the table accompanying which gives the best locations for various types of woods. For instance for knees, keel and frame white oak is best, while mahogany is best suited for planking, interior finish and trim.

It will possibly be interesting to note that mahogany first came to notice by the attention it attracted due to its beauty, hardness and durability to a ship's carpenter on board Sir Walter Raleigh's ship in 1595. A Dr. Gibbons is said to have first introduced its use for the manufacture of cabinets, etc., in England in the early part of the 18th century.

Mahogany is generally classed under two heads, namely, Spanish and Honduras. The former comprises the rich, solid, heavy article which is more or less difficult to obtain as it is only produced in limited quantities. The Honduran is a plain open grained, light wood but is exceptional for its straight grained properties which make it so easy to work.

The main reason why it is popular with small boat builders is because of its straight grain, beautiful color and the possibility of obtaining it in fairly long pieces which eliminate joints. Other qualities that present themselves are that, in being close grained it does not absorb moisture to an appreciable extent and does not have the tendency to warp. Its nail holding tendency is great and its durability superb. For interior joiner work its glueing adhesiveness is unexcelled. It will take a fine finish and for runabout construction where a natural finish is desired it can be finished to perfection.

Mahogany comes in the second class of woods tabled by Lloyd's for shipbuilding use.

As first mentioned mahogany does not contain the strength sufficient to take the strains that other woods possess.

The layman has the idea that the cost of mahogany is so much greater than other woods that its use is prohibitive, which is not the case, taking into consideration the total cost of the boat.

H. S., New Orleans, La.

(Continued on page 62)

Rules for the Prize Contest

READERS are urged to consider the above questions for the December issue, and send answers to them to the Editor, *McTeR BoatInG*, 57th Street at Eighth Avenue, New York, N. Y. Answers should be (a) in our hands on or before October 25, (b) about 600 words long, (c) written on one side of the paper only, (d) accompanied by the senders' names and addresses.

The names will be withheld and initials used.

QUESTIONS for the next contest must reach us on or before October 15. The editor reserves the right to make such changes and corrections in the accepted answers as he may deem necessary.

The prizes are: For each of the best answers to the questions above, any article or articles sold by an advertiser advertising in the current issue of *McTeR BoatInG* of which the advertised price

does not exceed \$25, or a credit of \$25 on any article which sells for more than that amount. There are two prizes—one for each question—but a contestant need send in an answer to only one if he does not care to answer both.

For answers we print that do not win a prize we pay space rates.

For each of the questions selected for use in the following month's contest, any article or articles sold by an advertiser advertising in this issue of *McTeR BoatInG* of which the advertised price does not exceed \$5, or a credit of \$5 on any article which sells for more than that amount.

All details connected with the ordering of the prizes selected by the winners must be handled by us. The winners should be particular to specify from which advertisers they desire to have their prizes ordered.

Many Varieties of Mahogany

IT IS paradoxical, but a fact, that mahogany got its start through its finish. English and Spanish shipbuilders began using it about two hundred years ago. With comparatively crude paints, varnishes, and polishes—and sometimes no finishing aside from hand tool work—they secured results that far surpassed other woods in appearance. The dark, reddish-brown color and interlocked grain, with ribbon effect on quarter-sawn pieces, set mahogany in a class of its own for beauty. This quality soon proved to be more than skin deep, for mahogany seasons well, does not warp or shrink as much as other high-grade woods, can be accurately fitted and figured, has strength and durability with moderate weight, and holds glue admirably.

There are at least fifty species of mahogany, and numerous imitations secured by staining somewhat similar woods, such as Spanish and Brazilian Cedar, Red Gum, and Birch. Only an expert lumber man or boat builder can classify and grade them; but the results secured from typical high grades of mahogany imported from tropical America, Africa and the Philippine Islands are well-known and appreciated by motor boatmen.

Extent of use must depend on the class and type of boat. With first-class mahogany selling at \$150 to \$200 per thousand board feet, its use for double-planking waterways, hatchways, deck, cabin and skylights adds hundreds of dollars to the cost of a 50- or 60-foot cruiser, compared to the use of more common white oak or yellow pine. Even crotched pieces of mahogany and thin, machine-cut veneers, as used for partial construction and minor trim and on runabouts and speed boats, add considerably to costs.

Excellence implies direct comparison, so following is a brief table of weights and costs of the best woods used in hulls:

Wood	Weight per cu. ft.	Cost per M. board ft.
Mahogany	35 to 48 lbs.	\$150 to \$200
White Oak	45 to 60 lbs.	\$100 to \$175
Yellow Pine	30 to 45 lbs.	\$40 to \$60
White Pine	24 to 40 lbs.	\$100 to \$150
Teak	45 to 70 lbs.	\$175 to \$300

Apparent advantages of the Pines are offset by the fact that they are not very strong, and the White is seldom procurable in long lengths. White Oak is hard to work, especially in intricate modern shapes and fits, and swells and shrinks in hard service. The excessive weight and high price of teak make it objectionable, although some designers and users prize it for its rich dark-brown or black color, body, and durability.

Mahogany's uniform body and long life are further enhanced for boat use by the fact that it is easy to refinish by any modern method. Varnished surfaces present a matchless luster over mahogany, and skillful hand-rubbing gives a pleasing natural glow. Fading and checking are rare on good grades that have been well seasoned and kept clean.

The motor boatman of today can and will pay extra for materials of distinct superiority, provided there is no apparent graft in the cost. Hence, the growing favor of mahogany—cut from trees 100 to 150 years old, shipped 3,000 to 15,000 miles to American boat-building centers, carefully stored and handled at every stage, and finally proving its worth in beauty, safety, and service.

D. McC., Cleveland, O.

Mahogany for Boat Hulls

THERE are many varieties of mahogany, ranging in color from light to the dark brown and of different qualities, but the expert is able to select the right variety to use for boat work.

In the case of those inexperienced in this matter it is best for them to deal with a reliable dealer specializing in boat mahogany or else they may secure the wrong material. The amateur builder should use care on this point.

To consider the question of the use of mahogany properly, it must be taken up from three standpoints—from the standpoint of the builder, the salesman and the owner. Each of these have their special reasons and viewpoints.

In the case of the builder, no matter if he be professional or amateur, there are a number of points of advantage in the use of mahogany. In the first place it comes in uniform quality being better graded

than most other material. It can be stored without danger of warping or otherwise deteriorating as many woods do. Its strength is uniform and suitable for boat work. It can be easily worked without splintering or cracking and presents a close grained surface that takes a good finish. It has a psychological effect upon the workers too, for they know they are working with fine material and put into it their best workmanship.

The salesman has a very good talking point when he is trying to sell a boat made of mahogany. There is magic in the word mahogany for it brings to most every one's mind the thought of the best things for it has been associated with quality products for ages and even though the prospective buyer may not know of its advantages in boat work, he is ready to accept it without question. With other woods, the salesman has to apologize in some cases or at least put up an argument in favor of the par-

(Continued on page 142)

TABLE GIVING BEST LOCATIONS AND USES FOR VARIOUS WOODS.		LOCATIONS.																			
MATERIAL		KEEL	STEM	STRUT	DECK	PLANK	SEAT	WALL	CEILING	TRUSS	TRUSS	TRUSS	TRUSS	TRUSS	TRUSS	TRUSS	TRUSS	TRUSS	TRUSS	TRUSS	TRUSS
MAHOGANY		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BEST W. OAK		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
COM. W. OAK		C	C	C	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
RED OAK		E	D	D	D	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
WHITE CEDAR		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CHESTNUT		0	D	C	C	0	C	C	C	0	D	D	0	0	0	0	0	0	0	0	0
HICKORY		0	A	0	A	C	B	0	0	A	0	0	0	0	0	0	0	0	0	0	0
L. YEL. PINE		C	D	A	C	0	0	A	D	0	A	A	A	A	C	A	B	0	A	C	B
RED PINE		0	0	C	0	0	0	C	D	0	C	C	C	C	C	C	C	0	B	C	B
OREGON PINE		D	D	A	0	0	0	A	D	0	C	C	C	C	C	C	C	0	B	C	B
WHITE PINE		0	0	0	0	0	0	C	0	0	A	A	B	A	D	D	D	0	B	A	A
LYGAL SPRUCE		0	0	0	0	0	0	C	D	0	0	0	0	0	0	0	0	0	B	C	B
COM. SPRUCE		0	0	0	0	0	0	D	0	0	0	0	0	0	0	0	0	0	C	0	C
ROCK ELM		A	C	C	C	A	C	0	C	0	0	0	0	0	0	0	0	0	0	0	0
RED CYPRESS		0	0	0	0	0	0	D	0	0	A	A	B	B	C	0	0	0	C	C	A
YEL. CYPRESS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COPPER		AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC
BRONZE		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
GALV IRON		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

A table prepared by H. S. which grades all boat building materials and indicated the most most suitable for every condition

Yard and Shop

Notes of Interest to Both Owner and Manufacturer

A Gold Cup Challenge

THE American Power Boat Association has received a challenge from the Yachtsman's Association of America for the famous Gold Cup. Dr. S. B. Smith who names his little boat Baby Chic II as the challenging craft is eager to try to win this cup and since the challenge is in correct form with all required conditions complied with, it would seem that next year will again see a contest for this trophy. It will be recalled that the rules now permit hydroplanes to compete and the restrictions limit the engines to 625 cubic inches piston displacement. Hulls are not to exceed forty feet in length.

M. E. Toepel Joins Bosch

Announcement is made that Mich E. Toepel, one of the best known ignition experts and automotive electrical engineers, has joined the engineering staff of Robert Bosch Company, Long Island City, New York. Mr. Toepel has been associated with the International Motor Company for many years as head of the research and experimental departments. His ability and technical skill have been responsible for many new and clever devices. He has specialized in magneto ignition and invented and developed many of the improvements found on magnetos today. The Robert Bosch Company are fortunate in being able to secure his expert services.

A New Reduction Drive Engine

The Universal Motor Company have recently announced a new built-in reduction drive for their new 6-80 marine motor.

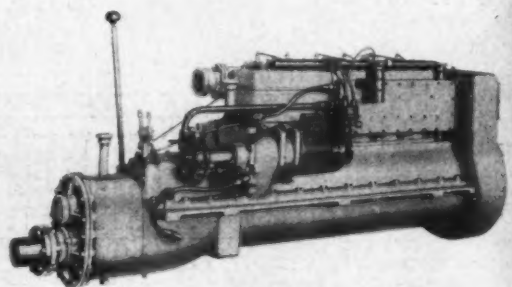
The reduction drive is furnished in either $2\frac{1}{4}$ to 1 reduction ratio, or $1\frac{3}{4}$ to 1 reduction ratio. The former is used for large, heavy boats, while the latter is suitable for medium size express cruisers.

The six cylinder motor has a bore and stroke of $3\frac{3}{4}$ inches by $4\frac{1}{2}$ inches and when equipped with the $2\frac{1}{4}$ to 1 reduction gear, the motor easily turns a 24 by 24 propeller from 750 to 850 r.p.m., which will drive medium cruisers of 38 to 40 feet from 13 to 16 miles per hour.

The $1\frac{3}{4}$ to 1 reduction ratio is largely used for express cruisers and will drive 28 to 33 footers 20 to 25 miles per hour.

The reduction gear is of the Herringbone type and is claimed to be noiseless in operation. The Company claims that the gear will have as long life as the motor itself.

Universal has been manufacturing the same type of Herringbone gears for their Super-four and Flexifour models for three years, and reports from enthusiastic owners indicate that the Universal reduction drive is standing up and giving entirely satisfactory service.



The new Universal 6-80 reduction drive motor in two ratios for heavy and express type boats. It is compact and powerful

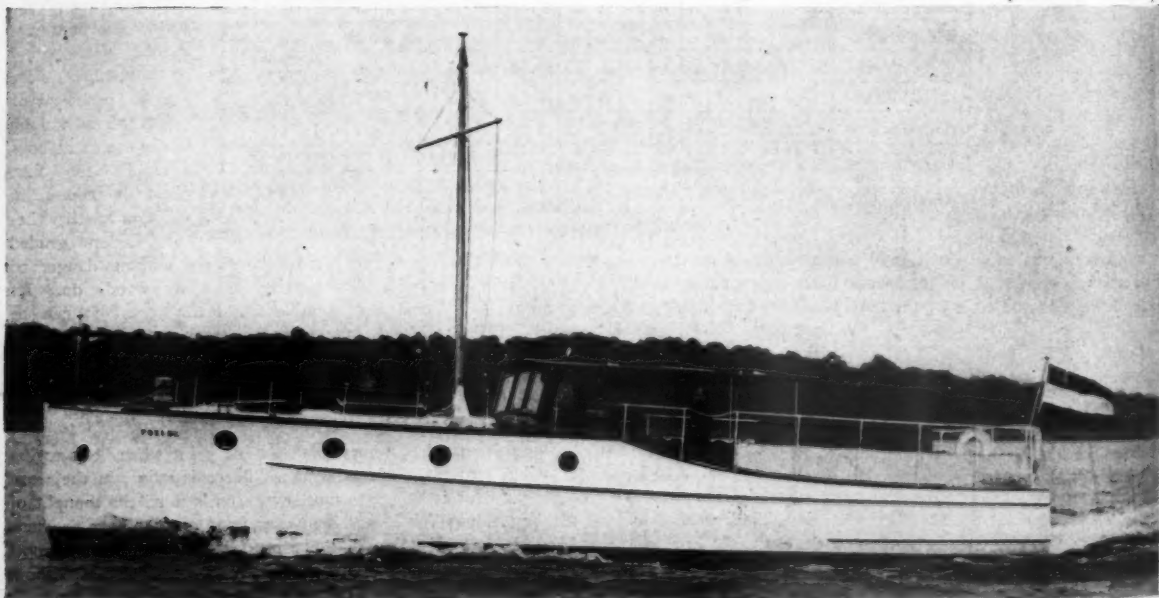
An Announcement

A piece of news of interest to the trade as a whole and to the so-called old timers in particular, is contained in the recent announcement, by Mr. A. J. Downey, vice president and general manager of the Scripps Motor Company, of the appointment of Theodore F. W. Meyer, as Sales Manager of that Company, to succeed Mr. H. P. Hellmuth, resigned.

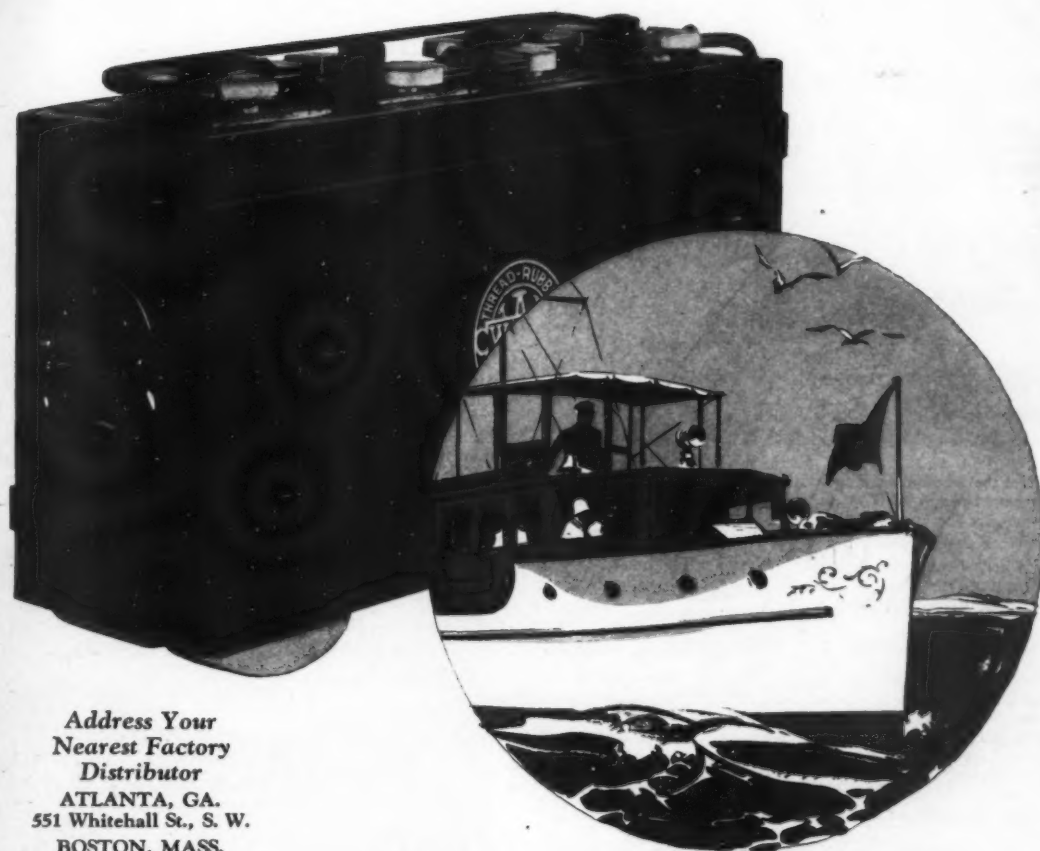
Though Mr. Meyer has been occupied in other fields for the past six years or so, he is by no means an unfamiliar figure to the industry or for that matter to the Scripps organization.

Old timers will recall that way back in 1908, while still at

(Continued on page 62)



An attractive 44-foot steel hulled cruiser built by Claus Engelbrecht, Germany. A model B Faybow-Continental motor gives her a speed of 12.5 m.p.h.



**Address Your
Nearest Factory
Distributor**

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16th and Hope Sts.
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630 West 28th St.
Terminal Store No. 14
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480 Second Street
1380 Bush St.
SEATTLE, WASH.
4th at Blanchard

Ask these builders about WILLARDS

When a boat or engine builder equips with Willards, he is giving his users the greatest battery value obtainable today—the most months of uninterrupted service per dollar of battery cost. These builders use Willards as original battery equipment:

Auto Engine Works	Gray Marine Motor Co.	Niagara Motors Co.
Beaver Mfg. Co.	Hercules Motor Corp.	Red Wing Motor Co.
Buda Company	Hill Diesel Engine Co.	Regal Gasoline Eng. Co.
Caille Bros.	Industrial Works	Roberts Motor Co.
DeFoe Boat & Motor Works	Kermath Mfg. Co.	Scripps Motor Co.
H. E. Dodge Boat Works	J. W. Lathrop & Co.	Standard Motor Const. Co.
Elco Works	Loew Mfg. Co.	Wisconsin Motor Mfg. Co.
Erd Motors Corporation	Mianus Diesel Eng. Co.	

Willard

STORAGE
BATTERIES

Mention MoToR BOATING, 57th St. at Eighth Ave., New York

Yard and Shop

(Continued from page 60)

tending the Massachusetts Institute of Technology, he spent his summers racing Scripps equipped boats on Lake George, N. Y., and selling an occasional Scripps motor between races. In 1910 he talked the Scripps people into placing him on their regular



Barjohro, the Sterling Petrel powered Toppan sport cruiser owned by Robert Shepard of Providence, which won the Vanderbilt trophy for express cruisers at the Newport regatta

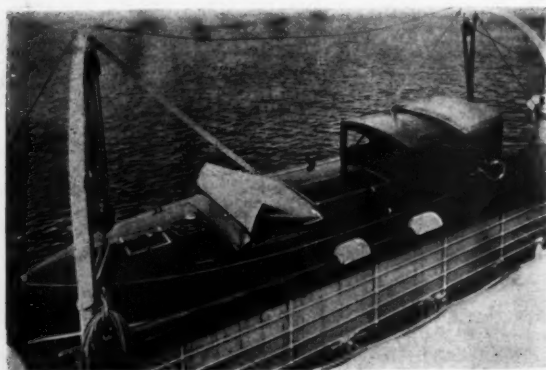
pay roll where he remained, partly in engineering and partly in sales work, until the fall of 1917 when he joined up with Fred Duesenberg at Elizabeth, New Jersey.

First Kermath Trophy Race

The new perpetual trophy donated by the Kermath Manufacturing Company of Detroit for the Kermath Handicap Cruiser Race, was contested for the first time on Sept. 1, 2 and 3 during the recent international races at Detroit. This handsome trophy represents a sterling silver cruiser—the original model from which the silversmiths worked was built by the Dawn Boat Corporation to a scale of the Dawn 45. The cruiser, which is 22½ inches long, is mounted on a silver sea 3½ feet long and 2½ feet wide.

R. E. Linn, owner of the Rob-E-Lo, a Matthews 38, powered with a Kermath 65 h. p. engine, was the first winner in the Kermath Handicap Race—an event which was run over a 75 mile course in three heats with twenty-three cruisers competing.

The Detroit Yacht Club will retain possession of this trophy for the ensuing year.



This smart Chris Craft yacht tender, swinging at the starboard davits of Vincent Astor's Nourmahal, provides swift ship-to-shore transportation

Alan McGregor, with a Liggett 40, finished second, and Dr. W. E. Adams, of the Detroit Yacht Club, scored the third highest number of points for his three days of racing.

Showroom Augments Sales of Boats

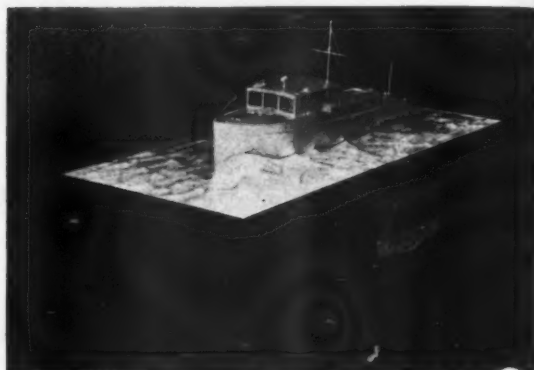
That the establishment of a centralized market place for boats leads directly to greatly increased sales is pretty well demonstrated by the record of Hubbard H. Erickson's Motor Boat Mart of Chicago. Mr. Erickson as manager of the Mart recently stated that the sales for the 1928 season, so far, would amount to nearly one million dollars. The sales mentioned included over

a dozen cruisers, a great number of runabouts, engines, and small craft by the score.

From the very beginning the Motor Boat Mart idea was a great success. The first Mart was started in a small show room on Diversey Parkway, a year ago last March but this soon proved to be entirely too small for the demands of business and it moved to the larger quarters at 2222 Diversey Parkway. Mr. Erickson reports that it won't be long before he will be forced into still more ample quarters.

Moving to Larger Quarters

Having outgrown their old New York headquarters at 1 Broadway the Oberdorfer Brass Co., manufacturers of the well known pumps for all marine uses, recently moved to 149 Church Street where a complete exhibition of all their products is possible. Among these products displayed will be, of course, their famous bilge pumps, circulating pumps, electric bronze bars for bushings, and castings in aluminum, brass, bronze, and other products.



The Kermath Handicap Cruiser Race Trophy is a handsome silver replica of a Dawn 45. It was won this year by R. E. Linn of the Detroit Yacht Club

A Twenty-Mile Cruiser

One of the interesting features of Viking, a trim 33 foot cabin cruiser owned by Emil Steiger of Oshkosh, Wisconsin, is the unusual amount of room made available by the use of a reduction drive motor requiring a very small amount of room for the installation. Yet Viking is capable of a top speed of 20 miles per hour and this record is made over a measured course in shallow, fresh water.

Viking is a V bottom Hand design with a beam of 8 feet 6 inches. She is powered with a Universal six cylinder 80 h.p. reduction drive motor. The motor is installed under the floor of the rear cockpit which is made possible by the extreme compactness of the motor. This makes it possible to arrange the boat for much greater room than would be possible with a direct drive motor large enough to drive her at the same speed.

Viking was built in Oshkosh, Wisconsin under the personal supervision of her owner, Mr. Emil Steiger of Oshkosh.

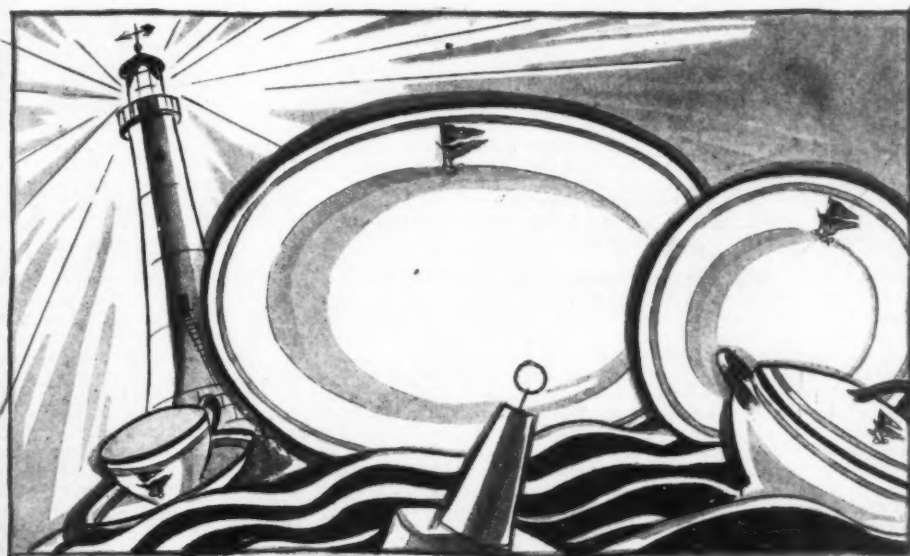
Illyria to Circle Pacific Ocean

Headed by Cornelius Crane of Chicago and Ipswich, Mass., its sponsor, a zoological expedition on behalf of Field Museum of Natural History, will sail about October 15 to make a circumnavigation of the Pacific Ocean.

Stops will be made in many of the principal groups of South Sea Islands, in the Orient, and in Alaska. The principal work of the expedition will be done in the East Indies from New Guinea to Java. Collecting will be done also on islands along the eastern coast of Asia.

The expedition, officially named the Crane Pacific Expedition of Field Museum, will sail in the new auxiliary brigantine-rigged yacht Illyria, owned by Mr. Crane. The chief objective of the expedition is to make collections of rare marine fishes and in-

(Continued on page 88)



Ovington's Prices for China and Crystal are as moderate as a 3-knot Breeze

NEVER mind for the moment how much your ship needs new china—how richly she deserves it—

Pass over for the nonce how well that china would look, with its flags floating gallantly in a richly colored border—your flag and the flag of your club—

And let us, this month, speak directly upon the subject of Ovington's prices.

It is true that Ovington's have supplied many yachts with glorious china and crystal services that have cost well up in the thousands of dollars. These are sets worthy of a museum, glorious things for

twenty people, ample enough for a transatlantic yacht.

But for smaller craft—say a cruiser for six, you may have a very fine Ovington china service decorated with your flags made to your order—for as little as \$100. And a sparkling sea-going crystal service will cost even less.

So is there really any reason why you should not come directly down to Ovington's, select your china, approve one of our designs we'll make for you, and three weeks later commence to enjoy your own china service on your own boat?



437 Fifth Avenue
New York

OVINGTON'S

"Gifts from All
the World"

Ramblin' Round Puget Sound

(Continued from page 32)

of the Northwest's land-locked salt-water playground.

Steilacoom, one of the oldest towns in the state, was touched at, and then a stop at McNeil's island. But not a long stop, we'd have you to understand, for on McNeil's island stands the grim structure of Uncle Sam's penitentiary and neither officer Jo nor Cap Frances were ever guilty of a crime in their lives—unless loving the outdoors is on the statute books.

Around Anderson island they whizzed, a short stop there and off they were again. Cap'n Burr altered her course a mite to the north-ard now to skirt about the fingers of Johnson point, but not for long; shortly it was south again and soon they were in Budd inlet, at whose extreme end is located Olympia. Soon the great white dome of the state capitol hove into view, where the laws of this state are passed. There, in that colossal structure of granite and rock, Governor Roland H. Hartley makes his abode.

From Olympia the course was north again and it led the untiring outboarders and their good ship Chancit into a riddle of nooks and inlets that made great cities seem miles away.

Into the narrow passage of Hammersley Inlet, at whose western end lies the busy sawmill town of Shelton, Chancit cruised. Stores yielded packages later proving to be eatables and away back through the sheer beauty of Hammersley Inlet they cruised, with their keen-kut appetite foretelling the time of day.

Close by the southern tip of Harstine Island they hummed, Devil's Head was skirted and then came a stop at Longbranch. Let us digress a moment and tell you of the peaceful life of backwater ways.

A long wharf that has seen better days projects out into the bay and at its shore end is a store of the general variety one that sells everything from chewing gum to farm tractor: not to mention marine accessories. Scattered cottages lined the shore. From the wharf, a winding road loafed into the woods; its busiest traffic would seem an occasional cow. The whirr-r-r of bellows came from an unpainted structure, apparently the local blacksmith. Can you remember:

"Under a spreading chestnut tree—etc.?"

But perhaps the most significant thing was The Castle, built by a local merchant in imitation of—well, who cares—but the castle represents a replica of an old saloon. Instead of stone, lumber sheaths its sides and its framework rises in solitary grandeur.

But on! A circuit of Carr inlet was completed and Skipper Burr kept a stout hand on the tiller as her ship turned through Hale passage and up around Evans point into the village of Gig Harbor. Yes, into Gig Harbor, where grim Austrians and sons of Norge have some of the finest fishing boats on the West coast. Those diminutive commercial carriers wing their way from the sunny shores of California to the ice-encrusted waters of the great Northland in search of the slippery gladiators that haunt the rolling blue.

Nosing away from Gig Harbor, named so because early explorers opined it had "Sufficient water for small vessels," the modern explorers foamed on their way up Colvos passage, passed the upper end of Vashon Island, that paradise of berry-growers, and shortly were abeam of Seattle. Yes, abeam, but far over across the channel with the purring outboard pushing Chancit toward the winding channel which leads to Bremerton. Far-away Seattle faded as on either side of them rose the shores of a passage, rugged and wooded, dotted often by cottages basking in the sunshine. Numerous small craft were passed and all their crews gave gay salutes to the tanned pair on the

thwarts of Chancit.

Bremerton abeam! Like an ant crawling between two mountains, Chancit weaved between two giant super dreadnoughts and nosed into a ship at the city quay.

Bremerton is the Navy Yard town. There, ships are given their annual or semi-annual outfitting and overhaul from bow to stern.

The Gob town was richer by a few quarters when the yanked the kicker and nosed into the stream. Old Sol beamed from high in the ethereal sky. Not a puff of wind anguished the water. The ship cut over the calm blue, chugging with grace, rhythm and ease that indeed was a compliment to twentieth century marine designers.

With Bainbridge island abeam, the ship sped onward, Keokuk port her next stop. The Johnson sang away—leaving Bremerton and her mammoth ships but a pleasant dream in the memories. Gulls circled o'erhead—waves splashed over the bow—a foaming wake bubbled in the stern; green meadows floated by, habited by a flock of cattle now and then, grazing on the hillside. Yeah, Mother Nature was close to their hearts. Ah, so close they could feel her warmth and hear her murmured sweet lullabies of the merry springtime. Birds warbled their songs; buttercups danced in the meadows; the sea smiled a friendly, lovable greeting.

2 bells, 1 p. m. Time out for lunch! Jo, at the wheel, idled down the Standard Twin so it barely turned over. The ship landed gracefully on the sand that was soft and fine, like sifted flour. What a pristine setting! Great, stately evergreens radiated to the four winds; a smooth rolling beach rolled to yonder point. Jo and Skipper Frances knew their outdoor stuff. Visualize if you can, a cheery fire with pots hung in some fashion from a wire stretched between two stakes; imagine you can one of those famous boiled dinners cooking over the blue flame. 'Nuf sed!

Yeah, dinner was cooking. And what a dinner it was! The lady Mrs. Burr knows her cookbook. It may not be exactly ethical to discuss one's foods, but man! that salty air surely does saturate one with a razor blade appetite. That spread would have satisfied any particular epicurean North of the South Pole or on the other side of the river Sphinx.

Not one half mile away was a small cabin, nestled between stately firs and cedars. A thin curl of smoke twisted lazily toward the azure sky. A man was standing nearby, gazing intently at the two outboarders with a pair of binoculars. He started finally, after taking a good, long look, for the coming of Chancit and Company.

"Aye, mates," the hermit said, in a rather cheerful but staccato voice.

"How do you do," Mrs. B. and Jo-Jo spoke simultaneously.

"Not so bad, not so bad," he retorted pleasantly.

Then came the story. A long drawn out thing, but of unusual interest to the twentieth century feminine voyagers.

As eighty-three-year-old Sigeir Arne Johanson started to talk and continued his interesting tale, Mrs. B. looked him over. He was a character indeed. His beard reached his breast and shoulders. It was white like a mantle of snow flakes. His frame was broad, he weighed perhaps two hundred pounds and was at least six feet two inches from tip to tip. He was dressed oddly but clean. A pair of faded dungarees, white rubber packs that reached the calf of his legs and a marine blue mate's cap, with faded gold letters were the most striking details.

(Continued on page 68)



Marine crooks around Detroit will do well to keep out of sight when this speedy Dodge, owned by the police department, comes along



at Danville on August 20th, Ralph Harrington drove a *Hi-Speed Quad* to an outstanding victory in the Free-For-All race in one of the most sensational speed performances of the year. Eldon Travis with a *Hi-Speed Quad* was second. Harrington then entered the 151 class race against a fast field — and led the swiftest 151 over the finish by a margin of 12 seconds.

at Savannah on August 15th, Barney Smith driving a *Hi-Speed Quad* won the 201 mile marathon to Augusta with an elapsed time of 6 hours, 3 minutes—with an average speed of 33.2 m. p. h.

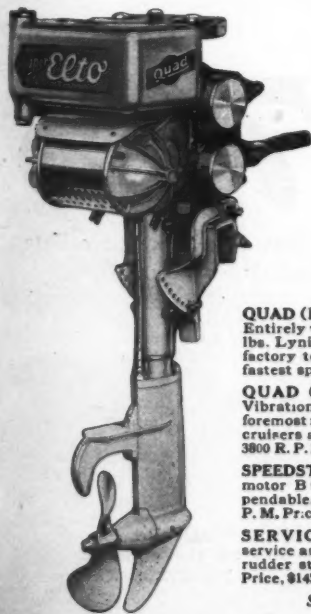
at Seattle on July 7th and 8th, in the Pacific Northwest Championship Regatta, S. V. B. Miller driving a *Hi-Speed Quad* won every heat in the Free-For-All against the fastest competition in the Northwest.

at Charlevoix on August 5th, Leonard Bailey driving the Bellair equipped with a *Hi-Speed Quad*, won the Free-For-All with a speed of 35.019 m. p. h.

at Geneva on August 18th, a *Hi-Speed Quad* won the Free-For-All, Cayuga Lake Regatta—and won the Oneida Lake Marathon on August 19th, with an average speed of 34 m. p. h.

at Berkeley on August 5th, *Hi-Speed Quads* won 1st—2nd—3rd in the unlimited race around Alameda Island—15 miles, two-thirds of it in the rough water of the bay

Everywhere from coast to coast, in important free-for-all races and grueling distance grinds, the new *Hi-Speed Quad* is establishing a premier position as the fastest outboard motor in the field — and as the most dependable and consistent!



QUAD (Hi-Speed) 4 cylinders Entirely vibrationless. Weight, 90 lbs. Lynite equipped. Each motor factory tested to 4300 R. P. M. The fastest speed motor. Price, \$295.00.

QUAD (Standard) 4 cylinders. Vibrationless. Weight, 92 lbs. The foremost motor for fast runabouts, cruisers and finest outboard craft. 3800 R. P. M. Price, \$275.00.

SPEEDSTER, Middleweight speed motor B Class. Swift, durable, dependable. Weight, 62 lbs. 3500 R. P. M. Price, \$165.00.

SERVICE TWIN, For average service and family use. Exclusive rudder steering. Weight, 56 lbs. Price, \$145.00.

Send for Catalog.

ELTO OUTBOARD MOTOR CO., Ole Evinrude, Pres., Mason Street, Dept F, Milwaukee, Wis.

The **Super Elto** *Hi-Speed* **Quad**

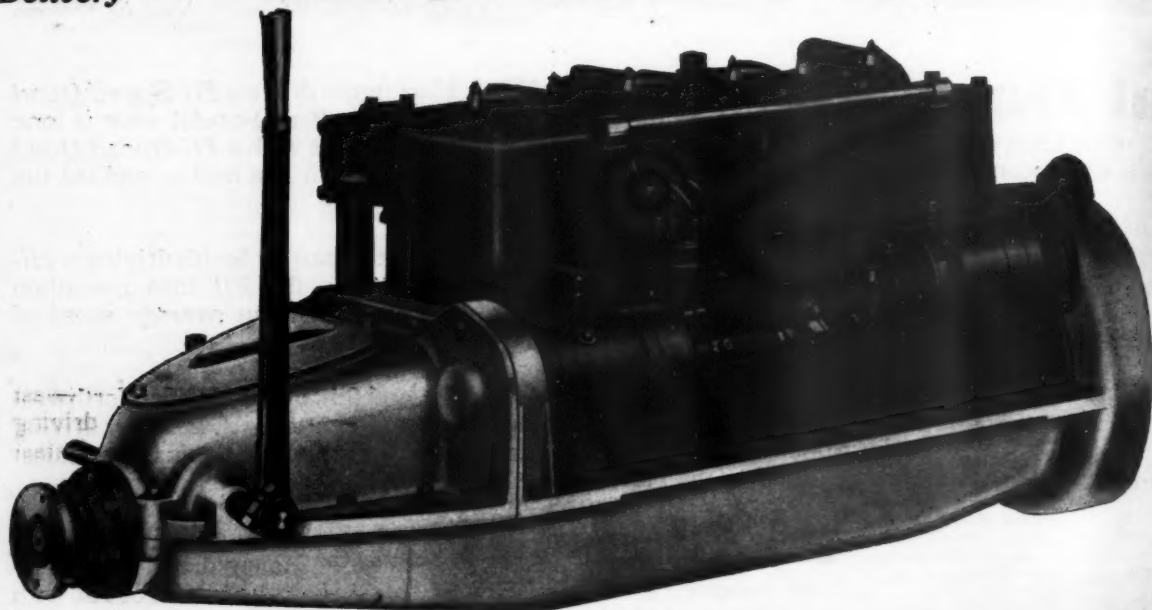
Mention MoToR BOATING, 57th St. at Eighth Ave., New York

A More Powerful "SIX"

Amazingly Free from Vibration

**Immediate
Delivery**

—Brought Down to a Popular Price



"6-72" For all who want abundant power and smoothest 6-Cylinder Performance \$765

\$795 with Aluminum Base

A distinctly modern "Six," embodying all those new features which you would insist upon having in your 1928 car and which are equally valuable in powering your boat. One ride behind a Gray "Six-72" will convince you of its super-sensitive response to the touch of the throttle, its finer flexibility of control, and its astonishing smoothness—especially when power pours at its height. Designed in 1927, produced in quantities for 1928, already it leads the "Six" field in value. Price, \$765 with iron base; \$795 with aluminum base.

Six cylinders. Bore, $3\frac{3}{4}$ "; stroke, $4\frac{5}{8}$ ". Length overall, $50\frac{1}{4}$ in. Only $16\frac{1}{2}$ " to top of plugs. 7 bearing, counter-balanced crankshaft, $2\frac{3}{8}$ " in diameter. Deep water jackets. Thick cylinder walls. Outside, accessible, removable oil pump.

Also Made in 90 H. P.

For those who want the limit of power in a Gray smooth "Six," we offer the "Six-90." Bore, $3\frac{7}{8}$ "; stroke, 5". Length overall, $58\frac{1}{4}$ ". Height, $20\frac{1}{8}$ ". Pressure lubrication and all the other mechanical features that uphold the Gray reputation for endurance and trouble-free performance. Price, \$1045.

Write for the Gray Catalog

Gray Marine Motor Co., 680 Canton Avenue, Detroit, Mich., U. S. A.

GRAY MOTORS

BUILT BY PIONEERS—ENGINEERS—LEADERS

OCTOBER, 1928

3 Free Books

To Help You Choose

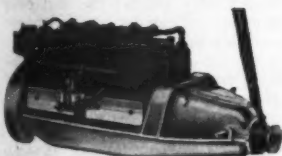
The BEST
ENGINE
for Your
BOAT



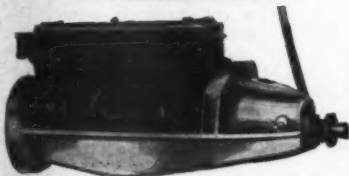
Gray One "3" and Two "19" are outstanding values in power for smaller boats. Prices, \$116 and \$236.



Gray Four "30"
3 3/4" bore, 4 1/4" stroke. Only 12" length overall.
Price, \$413.



Gray Six "60"
New Gray Six "60"
5 1/2 inches long; 3 1/4" seven bearing crankshaft. Weight, 550 pounds.
Price, \$645.



Gray Six "72"
3 3/4" bore, 4 1/4" stroke. Less than 51" overall. 2 3/4" seven bearing crankshaft. Price, \$765.
Iron Base: \$795.
Aluminum Base.

Gray Eight "115"
3 3/4" bore, 4 1/4" stroke. 3 3/4" counter-balanced 5 bearing crankshaft. Under 60" long overall.
Price, \$1100.

For more than 20 years, Gray Motors have been making good in all parts of the world. Last year the average service cost on over 70,000 of them was under 50 cents per motor. That's why "Everybody has a good word for Gray." The new Gray line of—

"Fours", "Sixes" and "Eights"

is especially notable for their ease of installation, accessibility of parts, great flexibility of power and remarkable smoothness in operation.

Check size in which you are interested:

- | | |
|------------------------------------|--------------------------------------|
| <input type="checkbox"/> One "5" | <input type="checkbox"/> Six "40" |
| <input type="checkbox"/> Two "10" | <input type="checkbox"/> Six "60" |
| <input type="checkbox"/> Four "30" | <input type="checkbox"/> Six "72" |
| <input type="checkbox"/> Four "50" | <input type="checkbox"/> Six "90" |
| <input type="checkbox"/> Four "75" | <input type="checkbox"/> Eight "115" |

Catalogs will be mailed free on request. Write for them.

GRAY MARINE MOTOR CO., 680 Canton Ave., Detroit, Mich., U.S.A.

BALTIMORE, MD., Mahon & Gall, Pratt & Gay Sts.
BOSTON, MASS., Gray-Aldrich Co., 6 Commercial Wharf.
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WILMINGTON, CALIF., The Wilmington Boat Works.

GRAY MOTORS

BUILT BY PIONEERS—ENGINEERS—LEADERS

Advertising Index will be found on 3rd last page

Ramblin' Round Puget Sound

(Continued from page 64)

acteristics of his garb. A marine blue shirt had apparently seen better days. His sleeves were rolled and on one arm was tattooed the picture of a beautiful woman, while a ship, apparently a replica of the clipper marine, was cleverly embossed on his other sinewy arm. As he talked he opened a can of Copenhagen snuff and twisted in his fingers to inject into his cavernous mouth.

Suspended neatly around his faded dungarees was a real sailor's belt, made from cotton seine twine. Jo didn't count the knots but she is willing to bet anyone a whole dime that there were at least ten thousand and ten knots in that belt. She said there were at least two square ties for every ship on the seven oceans. A silver buckle with the initials, S. A. J. glistened in the brilliant sunshine.

"Yes," Sigair continued, "I was born in Opdal, Norge, over eighty-three years ago. Aye, ladies, I've sailed the seas of the two hemispheres for fifty years and twelve. I was married too, but my wife is gone," he gazed wistfully as the ripples rolled on the sandy beach.

"Yeah, she died forty-two years ago. My ship was loading in Sydney prior to clearing for Liverpool with wool. My wife, the beloved woman, contracted pneumonia and died ere we put to sea. I followed her dying wish by parcelling her body with canvas and dropped her over the side, 1,120 nautical miles out of Sydney." His voice cracked and his deep blue eyes dampened. He harkened as a steamboat's whistle tooted 'round yonder bend.

"I'm still an old shellback of the sea, though," he added. "My small sloop is anchored off that spit over yonder. With her I fish and cruise these God-sent waterways of Puget Sound. Seaboy, as she is named, is my only happiness now, but I guess my days are drawing to a finish," he added slowly, with careful thought.

"Girls," the old man's personality took a new grip on life, "come over to my shack and I'll show ye relics from the far corners of the earth's ends, and some of the finest paintings ever turned out in the fo'c'sle of a clipper."

His cabin was spick and span, clean as a newly holystoned deck. Trim, graceful paintings of full-rigged ships suspended from the marine blue walls. Ostrich feathers from Durban, S. A.; quaint images and beads from Shanghai, China; nuggets from Nome and the Klondike; pictures and press clippings from the world's presses were among his sacred possessions. He kept most of the relics in an iron-bound sea chest, decorated with hand carvings of clippers, symbolic of the historic era when tea clippers raced home from abroad.

He told Mrs. B. and Jo of the balmy days that used to be when the snowy white wings of the clipper marine ruled the highways of God's oceanic trails. He spun yarns of iron men and wooden ships, of card games, fights, 'round robins, typhoons, strange ports and distant lands.

"Ah, those were the days," and the old dog looked sadly at a replica of the famous clipper, Benjamin F. Packard. "Right here on the sound," he added, "I've seen as many as fifteen full riggers lifting a cargo of lumber for different ports of the seas.

For over three hours he talked of strange places and odd people with two very interested listeners gulping in every detail. He spun yarns of world's ports—of those strange, hidden corners 'round the compass from Main street. He vividly brought Calcutta, Sydney, Hongkong, Singapore and dozens of towns right before their eyes with brilliant descriptions and anecdotes.

"My sea boots have travelled on the seven continents. When I first landed in New York, I purchased a world chart, fully intending to keep a diagram of my travels. After a few years the chart was full of lines so I gave that method up as a bad job."

If Jo-Jo and Mrs. B. had had their way they would still have been listening to their newly found friend. But the tide, the wind and vacations wait for no one. Reluctantly they bade their friend an adieu, promising to write him when they returned home.

An hour's run and Keyport hove abeam. Yes, Keyport, where the good old U. S. has a torpedo station. Just as the birds twittered their evening songs, as the sun dipped beyond the snow-capped Olympic range, and the peace of twilight stole softly over the Charmed Land, Jo weaved the good ship into the quaint harbor of Port Madison. There they made camp.

Picture if you can a full moon high in the clear sky; imagine a sandy beach with the wind whistling softly through the pines and firs; then dream of a cheery campfire in the shelter of overhanging trees. Ah! You have it! Camp at Port Madison!

Daybreak! A thin vapor hung over the harbor but the rising sun presaged another beautiful day.

With a group of curious townsfolk watching them depart, they chugged away and set her dead on for Kingston. Once out of the bay and into the sound proper, huge seas gave the cruise an added impetus—a supplementary thrill as it were. The Standard twin chirped merrily. Chancit dipped cleverly through the swells, tossing spray high into the sky.

It was still rougher going when the crack Seattle-Vancouver liner, Princess Kathleen, came bowling down sound twenty knots or more. Passengers greeted the diminutive but fair maidens in the good ship Chancit. The little outboard craft quartered into the mountainous swells, her bow charging like a rearin' hoss.

They reached Eglund just at gloaming time. A small fleet of diminutive trollers and purse seiners rolled easily at anchor. The summer sky was a veritable profusion of gaudy colors, with streaks of red, gray and silver fading across the dome of the heavens. Old Sol was a ball of red fire tinting the white skyline of the picturesque Olympic mountain range. The croaking of frogs; the raucous calls of birds, perhaps mothers bringing home offspring; an occasional trout jumping out of the mirrored water, were the only sounds, except for the crackling of a cheery fire, and the rhythm of ripples rolling on the white sandy beach. What a setting! Free to anyone, one thing in life that the gold digger can't sell.

Tall, square-shouldered fishermen, warped their craft into the harbor and rowed to the store. Those Vikings were symbolic of the honest Scandinavian folks who wrest a livelihood from the silent depths. Kind and friendly, they are honest as the days are long. They helped to haul Chancit above high tide mark and showed the twentieth century outboard flappers where good spring water was obtainable. Yes, spring water that was fresh and pure from the hills of yonder mountain.

Stars beamed like fireflies on the dome of Heaven, so they didn't bother with a tent but used nature's tents. The night was clear as a bell with no wind, while a moon beamed a cheerful smile from high in the mighty firmament.

So, with Mother Nature right by them they slept soundly, perhaps dreaming of the golden outboard trail, pieces of eight, or grog-laden buccaneers who ruled the seven seas when galleons were conventional on the quaint waters of the historic Mediterranean sea.

Boy, what a morning! Twenty minutes off by the ship's clock for setting up exercises. And then a breakfast that couldn't be bought for one dollar and forty nine cents. Ham and eggs, toast and jelly, with coffee that only master chefs can produce.

Two small boys, sons of a fisher family, played the part of a true Romeo and helped launch Chancit. They beamed from ear to ear when given a world famous Rockefeller dime.

Just another day! One twist of the cord and away. The Johnsons sang the same old merry tune—a song of praise for Johnson engineers and designers. Jo-Jo studied the geodetic chart and mapped out a course for Richardson on Lopez island.

It was jolly good to chug upsound, past verdured Whidly island, with two mountain ranges constantly in view. Ah, it was thrilling to gradually approach a lumber tramp that belched columns of scudding black smoke into the clouds, speak the skipper and leave him in the foaming wake of the pretentious ocean greyhound, Chancit.

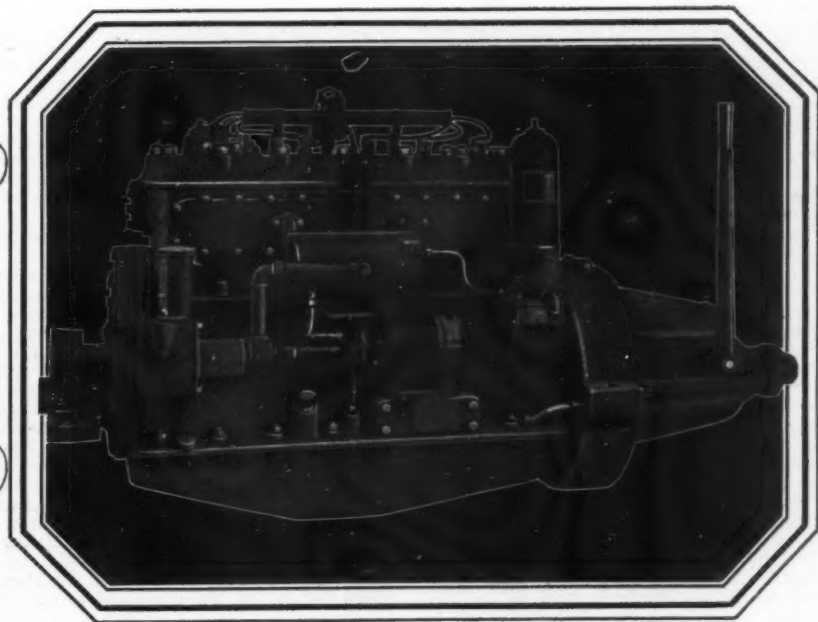
Shortly after mid-day when Captain Burr thought her ship into Richardson they discovered that advance information regarding the town is true. For Richardson is the Boston of the West coast.

There, on Lopez island, hundreds of fishing boats are anchored in the surrounding harbor when the salmon season is on. Many hove to during evenings and others steal in there to overhaul their gear when the silvery salmon aren't running at the banks.

Skipper Burr's eagle eye selected a peaceful cove not far from town. The evening was picturesque. Red, white and green lights flashed across the bay. The staccato barking of marine engines reverberated on the distant hillside. The crash of windlasses; the swish of oars, the animated jabbering of hearty fishermen sounded and resounded over the mirrored water.

Did you ever hear Hans play the accordion? I thought so! He's been through here on the Orpheum circuit. Yes, and up at the College Inn, Seattle. Well, you know what he can do. And that night, after chow when the two ladies were lounging around drinking in to the very depths the joy of that inland sea, when some sober son of Scandinavia on one of the fish boats pummed up his o'd concertina, and I hand him the bottle over anything Hans ever did. We listened. I mean the girls

(Continued on page 74)



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Boating on Arctic Waterways

(Continued from page 49)

eastern. These would have included the many hundreds of square miles of deltaic plains and marshes built up by the silt deposited from the floods of the Peace and the Athabaska. This building-up process is still going on. When it has gone far enough the Athabaska will pass right by the western end of the reduced lake in a straggle of channels interlacing with those of the Peace. Only in times of flood will its waters reach the great lake through which it now flows. The Slave River, confined in its rocky channels below the mouth of the Peace, will not be affected.

Dropping her fish-barge just inside the mouth of the river, the Athabaska headed out into the open lake and laid a course for Fort Chipewyan. After a few miles we were beyond the mud flats, and from there on the water cleared and deepened rapidly. The northern shore is rocky and steep, and as this leads down toward the outlet there is a strong suggestion of the narrowed lower end of Lake Ontario, where the St. Lawrence begins to pour out through the Thousand Islands. There is evidence, indeed, that the same glacial scouring that clawed out the channels of the upper St. Lawrence and chiselled the Thirty Thousand Islands of Georgian Bay also operated to sculpture the native rock of the northern shore of Lake Athabaska. Lacking the imposing grandeur of the Ramparts of the Mackenzie or the Rocky Mountain Canyon of the Peace, there is still no place along these thousands of miles of northern waterways that excels in scenic charm the approach to historic old Fort Chipewyan through the rocky island portals of Lake Athabaska.

The present Fort Chipewyan, though probably the oldest of the Hudson's Bay posts in the Mackenzie Basin, is not on the site of that earlier North-West Company fort from which the Mackenzie set out for the Arctic and the Pacific. That primitive establishment was on the low southern shore of the lake, possibly at a point that would have been left far inland by the extension of the delta. I have not been able to learn if there is anything by which the location can now be identified.

It was nearly ten o'clock of the waning summer evening before the steamer was made fast against the sprawling rock of the Hudson's Bay Landing. In the half-moonlight, half-twilight, the white buildings rimming the ragged loop of bay stretched away in ghostly perspective. There were no lights, but many smokes. Those drifting coils of blue would have suggested peacefulness, had one not known that they were from anti-mosquito smudges and that tortured humans were coughing and slapping in the hearts of them.

Perhaps a hundred people—mostly Indians—were scattered in waiting groups over the rocks above the landing, with many more straggling down along the paths or converging from the water in a score of canoes driven by popping motors. A black-robed Catholic priest, muttering fervent incantations above a stalled outboard, caught the tail of my eye as I vaulted ashore. From both diction and delivery I could have sworn the man was cursing—or I would have thought so had he been a layman, I mean. His mutterings were in French, and it is astonishingly hard for a novice to differentiate surely between fervent praying and ardent cursing in that language on account of the spatter of *Mon Dieu* in both recitations. A suspicious circumstance however, was the fact that the brother's canoe-load of demure Gray Nuns was very near to exploding with suppressed giggles, which would hardly have been the case were it a mass that was being said for the soul of the recalcitrant kicker.

Chipewyan is one of the few remaining posts of the North that preserves the approximate form of the original establishment. The store, warehouse, factor's house and various out-buildings straggle over the rocky hill in the form of a rough triangle. Surrounded by a log stockade, with block-houses at the corners, this formed a readily defensible fort against any attack the poorly armed Indians were ever capable of planning. Two or three of the block-houses still remain, but the stockade—if there ever was one—has long since been put to more practical use than that of keeping harmless natives at a distance. Indeed, with the increasingly rigorous competition of the independent fur traders, the problem of the Company has resolved itself entirely into one of attracting the Indian, not repelling him.

The anxiety of the captain of the Athabaska to maintain his lead in the race with the Northland Echo led to my involuntary involvement in what must have been one of the funniest shuttle marathons with which the sleepy old post was ever entertained. Word had been passed to the passengers that, although the steamer stop would be as brief as possible, the half-hour, quarter-hour and five-minute warning whistles would be sounded as usual. I felt quite free, therefore, to extend my nocturnal explorations to somewhere near the two-mile limit from which I could comfortably return in half an hour of quick walking.

It is possibly because the North appears to take its pace from the "even step and musing gait" of priest and nun and the shambling plantigrade shuffle of the Indian that a fast-striding man is regarded with suspicion. The assumption seems to be either that he has done wrong and is fleeing, or that he contemplates wrong and is hurrying to get it through with. And so it was that I attracted followers all along the devious paths which led me by the graveyard and along the beach to and beyond the big Catholic mission.

But if there were a score of moderately tenacious sleuth-hounds in my wake as I turned at the sound of the first whistle, this was nothing to the Fiery Cross contingent which poured forth and hung on my flank as I started legging it back steamerward at a good swinging trot. I was certain that the quarter-hour double-toot had been sounded in place of the expected half-hour blast by mistake, but just to be on the safe side I decided to negotiate the distance at an easy lope. But even that was too slow. I had ducked and dodged for less than a mile when a short screech informed that the gangways were hauling in, and by the time I reached the top of the last stretch to the landing the boat was headed out across the bay, apparently on her way to the next port.

The language which I must have used when my hand-cupped hails failed to attract attention on the departing steamer was hardly calculated to reassure the following mob of the innocence of my intent. It is more than likely, indeed, that threats of murder were hurled across the mosquito-clogged air. Being left on the beach without even a razor or tooth-brush was bad enough, but when the marooning also meant the missing of the connection for the last boat of the season on the Mackenzie it was a downright outrage. I broadcasted this all whom it might have concerned as well as to various and sundry others, and in a way, I fear, that only confirmed their original suspicions that I was not a law-abiding person.

At the Hudson's Bay store a nonchalant "breed said that he

(Continued on page 72)



School children at the Hay River Mission

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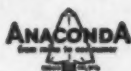
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Boating on Arctic Waterways

(Continued from page 70)

thought the steamer was going to make another stop at Colin Fraser's post in the next bay and that I could probably catch it there if I hurried. He was sorry that he had no horse or motorboat to offer me. The bull-at-a-gate rush with which I clove through the mob at the portal of the compound was the one thing needed to convince the simple souls that a red-handed murderer was running amuck. They opened up ahead, but only to close up behind and swing in pursuit as I passed. None had quite the nerve to stretch a restraining hand, but I did gather the impression that they were telling their dogs that the fugitive was legitimate game. Running is not the way to awe the snarling huskie of the North, and I had to juggle my heavy cane like a drum major's baton to keep the snarling pack clear of my flying heels.

Winded and wobbly of back and knees, I had reeled off a mile of the chase when a faint blast from beyond the loom of the rocky point ahead winged word that the steamer was getting ready to push off from the Fraser post. At the same instant I all but stumbled over a large Peterboro that had just been drawn up on the beach below the Catholic Mission. From the outboard cocked up on the stern and the robed figures disappearing in the darkness, I took this to be the stalled shallop I had seen on first quitting the steamer. Hot cylinders revealed that the bucking motor had been finally coaxed or cursed into action.

Telling myself that the finding of this heaven-sent argosy was as providential as the planting of

"... the tangled ram
To save the child of Abraham,"

I promptly ran it down into the water and began to spin the motor with its starting rope. It took me all of five minutes to diagnose the cause of the weak and spasmodic spittings as an emptied gas tank, and that was just long enough for my dusky pursuers to spread the alarm that a raving murderer was trying to make his escape in the Mission's canoe. And that, of course, was quite sufficient to bring down the whole personnel of the largest Catholic establishment in the Mackenzie basin to augment the milling mob on the beach. It was a veritable microcosm of the Day of Judgment chaos.

It may have been an accident that there were a number of rifle barrels glinting in the light of lantern and electric torch. Or, again, it may not have been. What, indeed, is a more effective weapon with which to cut short the flight of a self-convicted would-be murderer than a .30-.30? Fortunately, the canoe was still near enough to the beach to make the sincerity of my kamerading beyond a doubt. And after that it was just a matter of paddling in and explaining the situation to a very kindly and sympathetic Oblate Father, who appeared to be the Senior Officer present. Indulgent from the long hearing of the sins of the erring, he readily acquitted me of evil intent and promptly volunteered his aid in speeding up my pursuit of the steamer.

The canoe and outboard were at my service, but the Father thought time would be saved by taking a short-cut across the point by a path over which he would have me guided by one of the lay brothers with a flashlight. The distance proved unexpectedly short by this rocky trail, but the time saved over that of following the more circuitous cart-road was not needed. There was a lot of stuff to go off for Colin Fraser and the last of it would not be disembarked for an hour. The premature toot had been an accident—someone had pulled the whistle-cord by mistake.

Oh, well, the diversion had its compensations anyway. That hour of mad scrambling along the banks and braes of bonnie Athabaska is the only shore-wise jaunt of the voyage of which my surviving recollections are not punctuated as thickly with mosquito memories as was my cuticle with mosquito bites. Which only goes to prove that the annoyance of the mosquito is very largely a matter of nerves and imagination. That singing, stinging pest is just about as numerous and active at Chipewyan as anywhere else in the North.

Speaking of mosquitoes: It was while traversing the Athabaska-Great Slave region a couple of decades ago that Thompson Seton devised an ingenious barometer to register the comparative density of the swarms of these predatory insects which he encountered at various stages of his journey. The following description is from his "The Arctic Prairies":

"Each day they got worse; soon it became clearer that mere adjectives could not convey any idea of their terrors. Therefore I devised a mosquito gauge. I held up a bare hand for 5 seconds by the watch, then counted the numbers of borers on the back; there were from 5 to 10. Each day added to the number, and when we got out to the buffalo country, there were from 15 to 25 on the one side of the hand, and elsewhere in

proportion. On the Hyarling, in early July, the number was increased, being 20 to 40. On Great Slave Lake, later that month, there were 50 to 60. But when we reached the Barren Grounds, the land of open breezes and cold water lakes, the pests were so bad that the hand held up for 5 seconds often showed from 100 to 125 long-billed mosquitoes boring away into the flesh. It was possibly to number them only by killing them and counting the corpses."

It is urged as a mitigating circumstance on behalf of the Arctic mosquito that his bite, unlike that of the malaria-bearing anopholes of the tropics, does not carry disease. Neither does the stab of a clean bowie-knife, for that matter; but, if enough blood is let out of the victim it will cause irritation, weakness and even death. So will the Arctic mosquito. We were to be favored with a case in point inside of twenty-four hours.

They were still talking about the race with the Echo when I returned to the steamer. We were nearing the home-stretch now—that section of the Slave which leads from the junction of the Athabaska with the Peace down to the end of the run of the upper river steamer at Fitzgerald above the first of the Smith Rapids series. If the Athabaska could hold her lead to the Peace she should have no difficulty in maintaining it to the finish. Unfortunately an untimely storm made this impossible. We were away from Colin Fraser's while the smoke of the Echo was still but a distant smudge on the eastward horizon of the lake, but a thunderstorm which burst upon us in the middle of shallow Fraser Lake, through which the drainage of Athabaska flows, made it impossible to proceed in the inky darkness without imminent danger of grounding. Finding the narrow entrance of the Riviere des Rochers was too desperate a gamble for even an Athabaska River captain.

Yet that was just what the sporting skipper of the Echo essayed and got away with. Anchored and waiting for the first streak of visibility, we saw the lights of the Echo go gliding through the mist and lead us down through the outlet by a mile or more. We passed her tied up to the bank of the Riviere des Rochers for wood, and then, by rushing aboard the barest fuel supply that would carry us through to the finish, got away ahead of her again and beat her to the mouth of the Peace, where she had to stop again to drop her barge of buffalo.

The present Wood Buffalo Park was established some years ago to take care of the increase from the comparatively small reserve at Wainwright. At first only 10,000 square miles were set aside, but an area of nearly equal size was added on the south side of the Peace when it was found that the rapidly increasing herds were crossing on the ice in winter. As this region is the only place on the continent where the buffalo has never ceased to exist in a natural state, the habitat is an ideal one. Only yearlings and two-year-olds have been transported, and these have bred so well that it is expected that the total number of animals in this great reserve will pass 10,000 within the next year or two. This herd is ultimately expected to yield valuable returns in both meat and hides.

The Peace is about four times the width of the Riviere des Rochers at their point of confluence. This is partly due to the fact that the great western river has already received a considerable portion of the discharge of the Athabaska through the Chenal des Quatre Fourches, the Revillon Coupe and other delta channels. The Peace is still the major affluent, however, both in length and volume of flow. The Slave, although carrying the combined flow of both Peace and Athabaska, is so confined between rocky banks for much of the sixty miles to Fitzgerald that its average width is shown by the chart to be rather less than half of that of the Peace for an equal distance above the junction.

By ducking through many side channels that were too shallow or narrow for the Athabaska, the Echo pulled up and passed us in the run from the Peace to Fitzgerald, but her lead was not enough to keep us from leaving her in the broad open stretch of the Slave above the rapids. We tied up five or six minutes ahead of her, which was just about the amount of time her skipper claimed he lost picking up a drunken man that wandered off the Athabaska at her last wooding-up. They were still squabbling over the result of the race when we pushed on over the portage.

The present sixteen-mile wagon road between Fitzgerald and Fort Smith, which forms the portage around the series of rapids interrupting the navigation of the Slave River between those points, has only been in use since the inauguration of steamboat services in the final decades of the last century. Previous to that time the scows for the Mackenzie went on down the river, with short linings or portages at each of the four main rapids. At high water a skillful and courageous crew could run all of

(Continued on page 80)

What's All This Talk About Diesels?

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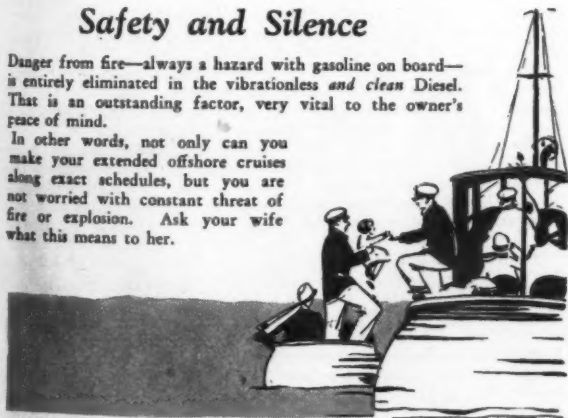
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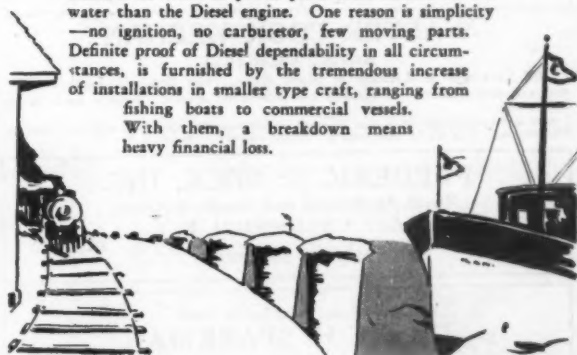
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Ramblin' Round Puget Sound

(Continued from page 68)

listened. And as his mood changed they could almost see the peasants dancing their old folk dances, gaily decked in the bright colors of the Norse people, or sense the brooding silences of the bitter snowbound winters of the grim northwoods. They could hear the Norse mother crooning a lullaby to her sleeping babe, mayhap the very song some mother had sung to this fisherman. Mrs. B. and Jo-Jo were spellbound by the music that floated toward them across the still, dark waters.

For three weeks they lived in the San Juan island archipelago. AND THEY LIVED! Yes, sir, yes, mam, for twenty one short days they cruised those vivid, fascinating waterways of the San Juan island country, over 300 islands in all. Victoria, on Vancouver island, named after Captain Vancouver, an early adventurer and explorer, was on their itinerary. So was Vancouver, Bellingham and a flock of other cities, many of which had been named after Indian chieftains made famous five decades back in the archives of dear old Father Time.

Mrs. B. and Jo-Jo lived, I'll repeat it again. They were glad their sedan autos were home in the garage. There wasn't any smoke, any dust, any speed cops on their course. They could open wide the throttle and not be held up by congested traffic or boring signals. Incidentally their physical beings changed slightly. They took on weight; their appetites reached a new point of satisfaction; that famous Juan de Fuca edge whatever that may be. And the tales they heard. Tales from remittance men, fishermen, adventurers, and ex-soldiers of fortune who perhaps owned a cabin and a skiff with a 1909 one lugger for a power plant. Not once did they meet with but courteous, civil treatment from those hearty pioneers of the sea and shore. Their trip was like a dream in one of the grandest cruising grounds in the world today, including every nook of the seven oceans.

Some rather peculiar things happened around Richardson from an objective and possibly a subjective point of view. Mrs. B. isn't afraid to tell the wide world that she will never forget one stretch of rolling blue they encountered not far from the fishing port. Aye, mates, if she lives to be as old as that gentleman, Methuselah, it will still hover over her. It's one of those things in life you wouldn't have missed but still wouldn't appreciate for a steady diet. Jo-Jo agreed on that.

Everything was riding fine although a bank of cumulus clouds scudding around in a rather cocky attitude indicated that a storm was approaching. It not only approached but came in a hurry—an uninvited guest. Fortunately for Jo-Jo and Mrs. B. that the engine kept popping or they might still be rolling around. Huge, maniacal seas thundered over the lean bow and saturated Mrs. B. and her girl friends to a fare-thee-well. If she was anchored in the bottom of the Atlantic for half an hour she would come out dry compared to how damp she felt. Jo-Jo didn't say much but a huge wave sprinkled half the Pacific on her also. Several went right over the motor but fortunately that contraption of lynite kept popping away, performing beautifully under those adverse conditions.

The diabolical screaming of wind brought on a great gray mass of heaving white-capped, mountainous seas. Jo-Jo said at the end that she would just as soon paddle a washtub across the Pacific as to crash through such a zephyr again.

Fortunately the wind died down from 110 miles an hour velocity to a mere breeze of 90 miles per. They idled down the twin so she harped along with the regularity of an eight-day ship's clock. But ah, those islands! it was worth the storm. Just an environment like one dreams about, ghostly, fascinating but beautiful.

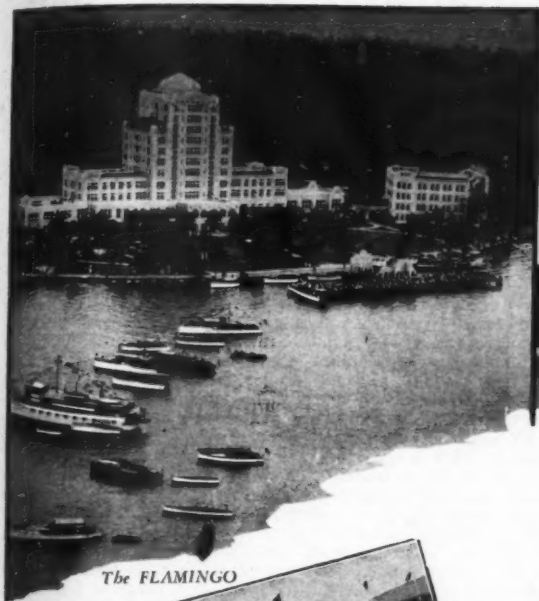
Then they met Christopher Angelus. For all you and I know he may have been a bottlewasher in a Phoenician rum runner about the year 999 A. D. That is, he may have been a galley slave, if clothes make the man. He had a rowboat with a beam of ten feet and a length of nine feet powered by an 1896 egg beater that perhaps saw convoy service in the Spanish American War. Besides twenty pounds of flax netting in the stren, Christopher had an oil stove, a canvas top, a peculiar stool, one short and one long oar, four round sticks, perhaps called thole pins in correct halibut going terminology. He was rigged for the ground fish, this man Christopher Angelus.

A coyote yelped; a fish jumped; an owl hooted from a nearby pine; Christopher waved a twenty pound Chinook salmon for a fare-thee-well and they chugged onward. Stars flickered in the heavens and finally camp was pitched on San Juan island, in the town of, well, for a better name, we'll call it London.

If there is any roaming spirit in your system you would have harkened to that irresistible call if you too had been on San Juan island that picturesque evening. It's something that stimulates

(Continued on page 76)

OCTOBER, 1928



The FLAMINGO



Come to MIAMI BEACH *America's Winter Playground*

COME this winter to Miami Beach, the world's most famed resort in the semi-tropics of Florida, and enjoy summertime sports in the outdoor where it's June in January.

Here every moment of the day is aglow with life, and the call of play is irresistible.

Boating — Bathing — Fishing
Golf — Polo — Tennis
Motoring — Horse Racing

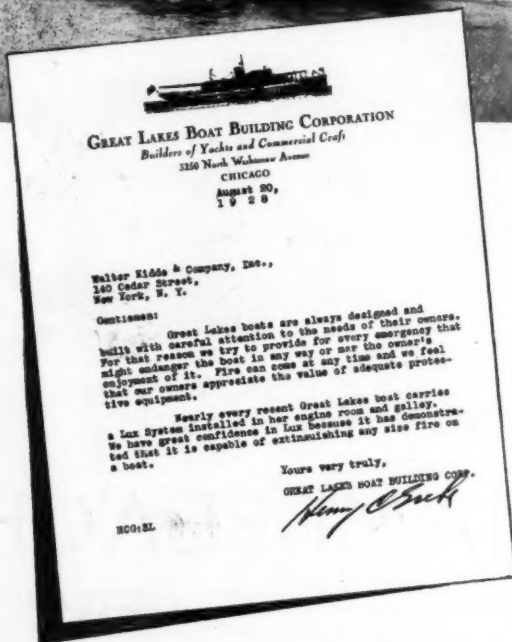
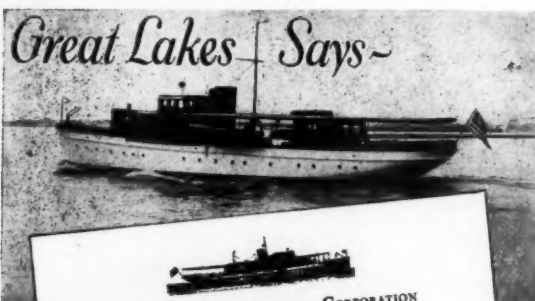
For further particulars and hotel accommodations address:

THE CARL G. FISHER HOTELS

Flamingo — Nautilus — Boulevard
Lincoln — King Cole
MIAMI BEACH, FLORIDA

The Great Southern Regatta combined with the International Races will be held on Biscayne Bay at Miami Beach March 22 and 23, 1929. Be sure to see these races. Among the important events is the contest for the Miami Beach Trophy, representative of the International Free-for-All Championship.





For Safety From All Fires— Large or Small

Fires are alike to the Lux System. Small blazes around the engine—fire in the galley—inaccessible fires in the bilges—fire resulting from an explosion that has blown the deck away—all have been out out by the Lux System.

Its simple piping system gives Lux equal control over easy fires and stubborn ones. The piping system, a result of 10 years experience and development, is scientifically designed to distribute the extinguishing agent effectively for every kind of fire.

Nearly 100 fires that have been extinguished on boats without a failure demonstrate the unflinching dependability resulting from this piping system. Approval by the Underwriters' Laboratories and nearly 1500 installations on yachts, Coast Guard patrol boats and Navy motor craft indicate the confidence placed in this feature of the Lux System.

All the larger boat yards are dealers

Walter Kidde & Company, Inc.
140 Cedar Street
New York

LUX

The Only Underwriters' Labeled
Yacht Fire Extinguishing System

Ramblin' Round Puget Sound

(Continued on page 74)

old and young alike, that tang of the sea, that smell of the balsam forest, those raucous calls of the animals and birds. To me it revives memories from story books of Utopia—the ideal.

Mrs. B. describes Chancit's qualities by reciting poetry, viz.:

"It hasn't the speed of a hydro,
Nor the comfort of a quarterdeck chair,
But a little of both and nothing loath
To take you anywhere."

Perhaps you should be told of Sven. They talked with him for hours and he was still just Sven. He lived in a little cabin that overlooked the blue lagoon. For eighteen years and more he had lived in the cabin by the blue lagoon. His daughters were grown and married, his wife had passed beyond in yesteryear. Sven had a boat and owned the ground on which was his property—a cabin, boathouse and chicken coop. Sven was odd. He claimed there was a buried treasure not far from the blue lagoon. Off and on for ten years he had searched for the treasure chest and still his dreams were unfulfilled. He has hopes some day of locating the chest of gold.

I'll wager any man or woman a new hat that he or she would have to go a long ways to find a finer camp than they discovered on Orcas island. Shades of Robinson's Crusoe, what a rendezvous for campers or feminine outboarders! A crescent harbor with stately evergreens not a stone's throw from the beach. There they camped three days; fished for slippery trout in the jade waters; hunted for clams on the enticing beach; in the evening snared jelly and star fish with torches to find their way. Yes, brothers, sisters too, they dreamed and talked, fished and ate, did everything that two people would do to have a corking good time on the dustless outboard motor trail—the golden trail of happiness.

Reluctantly, very reluctantly, they thought of the homeward trail. Between Fidalgo and Whidby islands there is a fast body of water known as Deception pass. The average yachtsman waits for slack water there. Not with Skipper Burr. She has faith in her egg beater and faith it takes. Chancit raced through that maelstrom of boiling, sizzling waves with nary faltering. The trim ship skimmed over the swirling whirlpools with sure ease and comfort. A miss there and one would soon be swimming for life. Chancit stood the acid test and carried them through with colors lashed to the mast.

I could bore you with details, anecdotes and descriptions but it's the same old story, folks! A story of a successful cruise. You may want to hear 'bout the twelve pound salmon Jo battled with for an hour off Possession Point on the Southern end of Whidby island. But thanks to Skipper Burr who finally gaffed the elusive salmon, Jo landed her prize o'er the gunnel. There was a feed. Visualize fried salmon with lots of butter. Waiter, make it a pair. Amen!

In dollars and cents their cruise cost but little. Returns from the trip are obvious. Recharged cells, a stimulus to plunge in and work hard for another year, fond memories of what has passed, with bright hopes of next year's cruise. Alaska or bust, is their 1929 program (and that with an outboard motor).

Englewood Basin Yacht Club

The third annual regatta and cruise of the Englewood Basin Yacht Club was held on September 1st, 2nd and 3rd. Last year's success prompted the Regatta Committee to again run a Chance Race on Saturday, September 1st, from the Englewood Basin to the South Haverstraw Basin—a distance of twenty four miles—where the fleet anchored over the holidays.

At 2:30 P. M., September 1, thirty-four spic and span cruisers were on the starting line ready to strive for supremacy. At 2:45 they were off; all bunched together for some distance until they began to scatter—and every boat finished. The boats encountered a strong ebb-tide and a northwest wind.

The drawing of prizes, conducted on the same lines as in last year's race, resulted in the following winners: First prize: A ship's clock donated by the Club, won by Mary Ann, owned by Mr. W. H. Strong. Second prize: A handsome ship's clock barometer put up by J. & W. Tiebout & Co., won by Chang Wan, owned by Mr. D. Hasbrouck. Third prize: A DeLuxe barometer put up by R. W. Zundel & Co., won by Aze, owned by Mr. J. Cafiero. Fourth prize: A DeLuxe instrument board donated by E. J. Willis Co., won by Virginia M., owned by Mr. Frank Morris.

The Englewood Basin Yacht Club is growing steadily. It has now eighty-five members—all boat owners and—the entertainment committee is preparing for great activities for the coming winter season and the Club contemplates a series of lectures on piloting and seamanship.

Glens Falls Optical Co.
INSURANCE BUILDING
GLENS FALLS, N. Y.

If it had not been for this little Pump!

Oberdorfer Brass Co.
Syracuse, New York

August 15, 1928

Gentlemen:-

I received my Automatic Bilge pump today and am very much pleased with it.
I also wish to state that I am more than pleased with the courtesy and service shown me by you, and assure you that I shall always have a good word to say for your company to any of my friends who are thinking of purchasing any of your merchandise.

My new pump is working to perfection and I might say here that my old pump saved my boat from going to the bottom of the lake. You might be interested in hearing the details.

I was reversing out of my slip and had gone about two hundred feet when I found to my surprise that I could neither go backward or forward and I noticed that the boat was settling. On investigation, I found that the shaft and propeller had kicked out and water was rushing in through an inch and a quarter aperture. I also noticed that my Oberdorfer was kicking a stream out of the side. I am sure that if it had not been for the amount of water this little pump was taking care of, my new boat would now be resting on the bottom of Lake George.

Thanking you again, I am

EHR:MS

Very truly yours,
E. J. Reese



Patents
Applied
For

NEW MODEL "B"
**OBERDORFER
AUTOMATIC
ELECTRIC
BILGE PUMP**

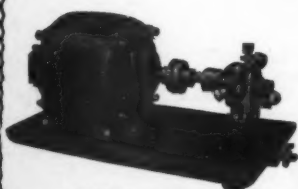
This is Mr. Reese's
boat, mentioned in
the letter above.



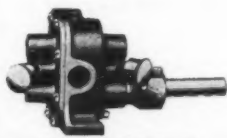
With a 6 or 12 volt battery on your boat you, too, can have safety and freedom from the bilge water nuisance forever. Install a new Model "B" Oberdorfer Automatic Bilge Pump. Push a small switch and you have automatic or constant action as desired. Many cases are on record where considerable damage, even lives, have been saved by the prompt automatic action of this pump in the case of emergency leaks.

Low in cost, only \$25.75. Low current consumption. Easy to install. Height 10". No clogging. Built of non-corrosive materials. Capacity up to 350 gallons per hour.

M. L. OBERDORFER BRASS CO.
2200 Thompson Road Syracuse, N. Y.



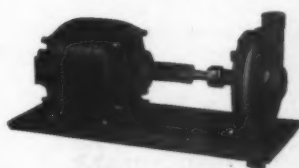
MOTOR DRIVEN
GEAR TYPE PUMP



TYPE A FORM Y
CODE AYE



HAND
BILGE PUMP



MOTOR DRIVEN
CENTRIFUGAL PUMP

Oberdorfer Pumps

UNIVERSAL SIX

WITH SILENT REDUCTION DRIVE



*Save on first Cost!
Save on operating Cost!*

With this compact modern motor
and UNIVERSAL'S *Built-In Silent Reduction Drive*

THE New Universal Six with built-in Silent Reduction Drive is the ideal power unit for cruisers and other larger type boats.

It costs one-half to one-third less to buy and saves tremendously on operating cost. Provides great speed, easier maneuvering, smooth, silent vibrationless operation.

Universal Silent Reduction Drive consists of an oil tight housing mounted directly to the reverse gear housing, in which the Silent Herringbone Gears shown above, operate in a bath of oil.

Universal Silent Reduction Drive is similar in principle to the differential drive of an automobile. Running in high speed, the automobile engine crankshaft makes about four revolutions, depending on make, to one of the rear wheels. The engine turns at an efficient, economical speed. In the same manner, the Universal motor equipped with Silent Reduction Drive turns at a speed of $2\frac{1}{4}$ to $1\frac{1}{4}$ revolutions to one of the propeller, accomplishing the same economical results in a boat that the differential brings to the motor car.

Silent Reduction Drive is adaptable to all Universal Motors. It is time-proved, absolutely dependable, is built to outlast the motor itself. Let us send you complete information.

A few of the propeller sizes and the R.P.M. with Universal Six equipped with Silent Reduction Drive.

$2\frac{1}{4}$ to 1

24x24	800 R.P.M.
22x26	800 R.P.M.
26x22	800 R.P.M.

$1\frac{1}{4}$ to 1

16x24	1100 R.P.M.
20x18	1100 R.P.M.
16x20	1600 R.P.M.

UNIVERSAL MOTOR COMPANY

40 Harrison Street

Oshkosh, Wisconsin

Not connected with any other firm using the name "Universal"

New York Show Room

44 Warren Street

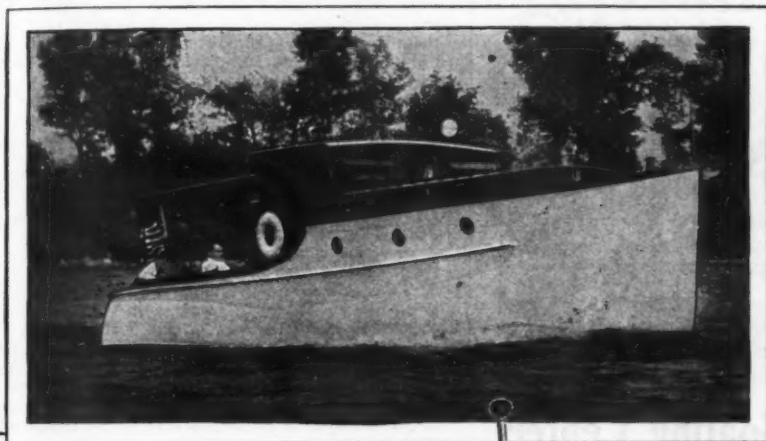
London Show Room

22 George Street

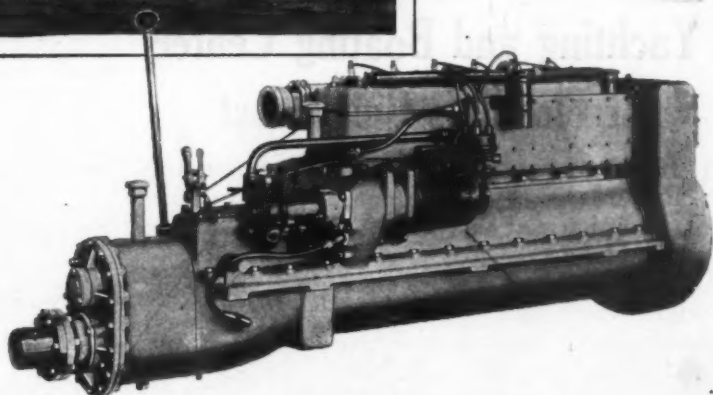
Hanover Square

Universal
1-4-6-8
CYLINDER
MARINE MOTORS
"Built Expressly for Boats"

20 M.P.H. WITH THIS 33 FOOT CRUISER



*Powered with
this SMALL
UNIVERSAL SIX*



OVER a measured course in shallow fresh water, Universal Six with built-in Silent Reduction Drive turns up a speed of 20 M.P.H. on the 33 ft. cruiser, Viking, shown above—20 M.P.H. silently, smoothly, without fuss or labor.

Universal built-in Silent Reduction Drive makes these compact, high-powered, modern type motors adaptable to boats requiring large, slow-turning propellers. It provides the utmost smoothness of operation.

Silent Reduction Drive is adaptable to all Universal Motors—1-4-6-8 cylinder models—in ratios of $2\frac{1}{4}$ and $1\frac{3}{4}$ to 1. It means a great saving on first cost and on operating cost. Besides, it means better operation. Let us send you complete information on the requirements for your boat.

UNIVERSAL SIX

Bore and stroke only
 $3\frac{1}{2} \times 4\frac{1}{2}$ and weight
under 700 pounds.

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New York Show Room
44 Warren Street

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Universal
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CYLINDER
MARINE MOTORS

"Built Expressly for Boats!"

Mention MOTOR BOATING, 57th St. at Eighth Ave., New York

Time to
Head South
to Sunny—



Yachting and Boating Center of Florida's Gulf Coast

If you want to enjoy a delightful winter with your yacht or motorboat, come down to sunny St. Petersburg, the yachting and boating center of Florida's Gulf Coast.

St. Petersburg is an ideal cruising base for a winter vacation. It offers every facility for the boatsman or yachtsman—three spacious yacht harbors, a splendid Yacht Club, marine ways, repair shops, supply houses, in fact, everything you could desire.

The waters surrounding St. Petersburg, moreover, are particularly attractive. You can cruise up and down the coast wherever you wish to many points of interest—into broad bays and land-locked harbors, up wide, tropical rivers, in quiet waters behind the innumerable islands, or out in the open waters of the Gulf.

The winter weather here is exceptionally pleasant. Warm, sunny days follow one another in almost endless succession.

On land, too, St. Petersburg presents a great variety of attractions. All kinds of sports and recreation—varied entertainment—the best of accommodations—and old-time hospitality. Write today for the St. Petersburg booklet. Mail the coupon.

M. K. CONANT,
Chamber of Commerce,
St. Petersburg, Florida.

Please send me your new booklet.

Name
Address



Boating On Arctic Waterways

(Continued from page 72)

these but the rocky cascades of Mountain Rapid, which was always portaged with both cargo and scows. The broad, deeply-worn carrying places are comparatively free of growth at the present day.

These rapids were known to the fur traders even before the time of Mackenzie, and the names applied to the lower three of them by those who preceded the explorer are still in use. These are Mountain, Pelican and the Rapids of the Drowned, the latter immediately below Fort Smith Landing. The French voyageurs, who were incurably addicted to dramatized nomenclature (as witness the frequent Dalles des Morts), were undoubtedly responsible for this name. Mackenzie, in describing his portage at that point, adds a word about the incident that gave rise to it.

"In the year 1786, five men were drowned and two canoes and some packages lost in the rapids on the other side of the river, which occasioned this place to be called the Portage des Noyés. They were proceeding to the Slave Lake, in the fall of that year, under the direction of Cuthbert Grant."

Mackenzie's difficulties in this Slave rapids series were negligible in comparison with those which awaited him two years later in Rocky Mountain Canyon of the Peace and the upper Fraser. He made the five or six portages with little trouble, the only loss being "one of the Indian canoes (which) went down the falls, and was dashed to pieces. The woman who had the management of it, by quitting it in time, preserved her life, though she lost the little property it contained."

In the accounts of many journeys to the Mackenzie the Smith portage is spoken of as the worst place for mosquitoes in the North. Several have gone farther yet, characterizing it as the worst in all the world on this score. The truth would appear to be that the historic road is not entitled to either distinction. Being more exposed to attacks in the course of their carrying operations, travelers have suffered more from both flies and mosquitoes on the portage than anywhere else on their journeys. This has led to their giving the road a worse name than it really deserves—bad as that is. As a matter of fact, in the breeze-swept clearings of both Fitzgerald and Fort Smith conditions are fairly bearable so far as the mosquito alone is concerned. It is the savage bulldog fly that is the real terror of the portage.

It is doubtless the fact that there are more horses in use on the portage than anywhere else along these waterways that makes the place the favorite rendezvous of the blood-thirsty bulldog. Indeed, with this ruthless vampire thirst for blood is only an incident. He is ravenously carnivorous. The end of his proboscis is a razor-edged gouge and with this he scoops out an eighth-of-an-inch-in-diameter disc of living flesh, to be carried off and devoured at leisure. By way of compensation, enough venom is left behind to cause the region of the bleeding excavation to swell to the size and contour of a pigeon's egg within a minute or two.

Nor is the predatory bulldog by any means such a comparatively lone-eagle as is his near-relation, the gray horse-fly of the American West. He does not darken the air with his swarms as do the mosquito and sand-fly that of the vicinity of their favorite haunts, but he has a touch of the strategic genius which enables him to concentrate where the pickings are the juiciest. I was shown photographs of screens in Smith where the lurking bulldogs, lying in wait for their prey, were clustered so thickly as to shut off the light of the room.

It is the worker in the bush and the camper that are the worst sufferers from insect pests along the rivers of the North. While traveling on the water one is fairly free from attack. Gloves and nets make it possible to walk about without undue annoyance. As for the dreaded Fort Smith portage, the drive across is now made by auto at a rate which makes effective ambush by insects impossible. Until a few of the bumps are taken out of the road, in fact, one will need a cushion more than he will a net during the hectic half-hour traverse.

Fort Smith is scattered over a level plateau a hundred feet above the river landing at the foot of the last of the rapids. A peppering of jackpine advertises the fact that the soil is dry, sandy and unfertile. The Hudson's Bay establishment crowns the brow of the bluff above the landing, looking north for miles where the broadening river winds away toward Great Slave Lake. The administrative headquarters for Northwest Territory is a substantial building flanked by a well-used board tennis court. A hotel, missions, police barracks, several eating-houses and trading stores, a number of scattered private homes and a fringe of Indian shacks and teepees complete the picture. The settings vary greatly, but these man-made features (minus the hotel and government building) are almost identical for the remainder of the posts all the way to the Arctic.

Fort Smith took its name from Lord Strathcona, nee Donald Smith, who made his start with the Hudson's Bay Company and

(Continued on page 84)

OCTOBER, 1928

MONTAUK BEACH

The New Rendezvous for Yachtsmen On Long Island's Slender Tip



THE DESTINY OF MONTAUK BEACH

The integrity and reputation of the men who have assumed the responsibility of completing successfully the development of this exclusive seashore colony insure the future. You can select or build a summer residence in Montauk Beach with every assurance that your investment will bring a return that is rich both as to increased value and hours of pleasurable life—playing with those you like to play with.

AMONG THE DIRECTORS ARE:

CARL G. FISHER, Planner and Developer of Miami Beach.

GEORGE LE BOUTILLIER, Vice-President of the Long Island Railroad, Vice-President of the Pennsylvania Railroad.

HOWARD E. COFFIN, Vice-President of Hudson Motor Car Co., Chairman of the Board of Directors of National Air Transport, Inc.

C. M. KEYS, Financier, President and Director of Curtiss Airplane and Motor Co.

CALVIN S. BRAGG, well-known sportsman and President of Bragg-Kliesrath Corporation.

RICHARD F. HOYT, Member Hayden-Stone & Co., Chairman of the Board of Directors of the Wright Aeronautical Corporation, Member of the Board of Directors of Trans-Continental Air Transport.

GLOWING autumn finds Montauk Beach glowier than ever. Crisp, clear days in the congenial, homelike atmosphere of Montauk Manor; quiet starred nights by the sea; sports galore and a yachting spirit like Miami Beach. These are the delights of Montauk Beach. Enjoy them now. They are in their prime. Cruise down to this yachtsmen's playground of the North. You will find a marvelous sheltered yacht basin and facilities unexcelled. Or motor down the Sunrise Trail, or come by through express train.

Write for Illustrated Booklet

Montauk Beach Development Corp.

MONTAUK, LONG ISLAND, NEW YORK

New York Office: Savoy-Plaza Hotel

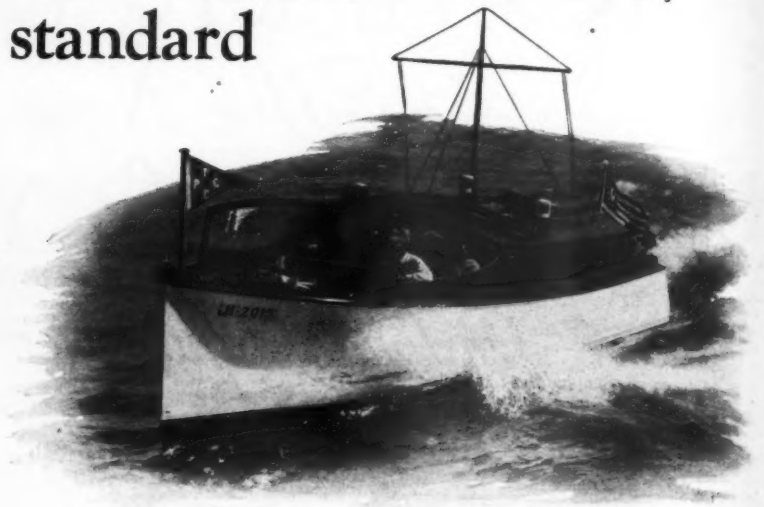
Phone: Regent 5000

Boating — Bathing — Fishing — Golf — Polo — Tennis — Horseback Riding

Mention MoTOR BOATING, 57th St. at Eighth Ave., New York.

This Wonderful Boat has already
set a new standard
of cruiser
value and
performance

A new era has dawned in the cruiser world! New possibilities of speed—smartness—style—have been revealed! Performance hitherto undreamed has become a living reality—coupled with a new measure of “chic” interior decorations and appointments. In other words—the new Matthews Speed Cruiser has arrived!



Matthews SPEED CRUISER

Smart, Speedy,
Seaworthy—has taken the
yachting world by storm



Successful from the moment of its introduction, the Matthews Speed Cruiser so fully answers the modern demands of style—speed—smartness—that the near future will doubtless witness announcements from every quarter of other boats of its general type. But the Speed Cruiser will remain the outstanding craft that it is today—a boat beyond rivalry—built as only Matthews knows how—appointed in luxurious manner—powered by a Kermath marine engine that delivers 23 to 25 miles per hour under flexible automobile-type control. 32 feet overall—yet incredibly roomy—the result of the most careful and experienced designing—4 individual Pullman berths—6'2" headroom in cabin—mahogany dresser and buffet—full-length wardrobe and clothes closet—complete toilet and galley. And ample space for ten in comfort on day cruises. Send for literature on this boat.

THE MATTHEWS COMPANY
PORT CLINTON, OHIO

Designers and Builders of Boats of Distinction—Since 1890

SALES and SERVICE—Belle Isle Boat and Engine Co., 9662 E. Jefferson Ave., Detroit. Bruns, Kimball & Co., 50-54 West 17th St., New York City. Wm. V. Masson, 421 Munsey Bldg., Baltimore, Md. Walter H. Moreton Corp., 1045 Commonwealth Ave., Boston. Lake Erie Yacht Brokerage Corp., 1365 West 117th St., Cleveland. Mississippi Valley Yacht Sales, Times Bldg., Alton, Ill. R. Sealy, Commerce Bldg., Galveston, Tex. Robert V. Staats, Inc., Bay Front and Palm Ave., Balboa, Calif.

OUR problem may become yours in 1929

The announcement of the 1929 series of Matthews Stock Cruisers has now been before the public just two months. The immediate response to the announcements has been much greater than we could possibly have expected. We want to sound a serious note of warning. Already we have an extraordinary amount of business on hand for Fall and Winter deliveries to southern points, and a number of the most desirable Spring delivery dates are being taken. We advise you to act promptly if you are considering a Matthews Stock Cruiser for this Fall or for next Spring.

Never in our almost forty years at building fine pleasure craft have we experienced such immediate, whole-hearted acceptance of our offerings as has come to us since the announcement of our new 1929 series of Matthews "38" Stock Cruisers, Matthews "46" Stock Cruisers, and the new Matthews Speed Cruiser. Even by a considerable increase in our production, there is no possible chance of our being able to take care of the demand for deliveries through the next twelve months.

It is true we have enhanced, both in beauty and value, every model of our already famous line. Larger engines are standard—greater speed is provided. We are satisfied that in bringing about the many additions and refinements, there is little possibility of future changes. For sheer value in big, able cruising boats, the Matthews "46" and the various models of Matthews "38's" are without a peer. Your most casual inspection would convince you of it.

The Matthews "46" pictured here, for example, with

its long, low, rakish beauty, has been refined and bettered in innumerable ways. It is comfort and luxury in every sense, and its extraordinary seaworthiness is known of everywhere. It is a finer, *fast* Stock Cruiser.

The Matthews "46" contains separate, complete quarters for a boatman, its forward cabin is most complete in three optional stateroom arrangements for the owner—the deck-house (or bridged cockpit when not enclosed) amidships is extremely spacious (the living room of the boat), and the cabin with its unusual air and light serves ideally as dining salon as well as sleeping quarters for four.

Matthews Stock Cruisers comprised of the Matthews "46," Matthews "38's" in five different models and eleven different arrangements, and the Matthews Speed Cruiser are described and illustrated in individual literature which we will gladly send you upon your request.

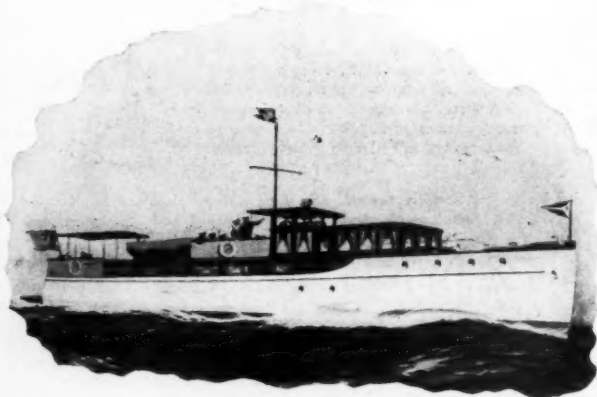
The MATTHEWS COMPANY, Port Clinton, Ohio

Designers and Builders of Boats of Distinction—Since 1890

SALES and SERVICE—Belle Isle Boat and Engine Co., 9662 E. Jefferson Ave., Detroit. Bruns, Kimball & Co., 50-54 West 17th St., New York City. Wm. V. Masson, 421 Munsey Bldg., Baltimore, Md. Walter H. Moreton Corp., 1045 Commonwealth Ave., Boston. Lake Erie Yacht Brokerage Corp., 1365 West 117th St., Cleveland. Mississippi Valley Yacht Sales, Times Bldg., Alton, Ill. R. Senly, Commerce Bldg., Galveston, Tex. Robert V. Staats, Inc., Bay Front and Palm Ave., Balboa, Calif.



The SUNBEAM CRUISER

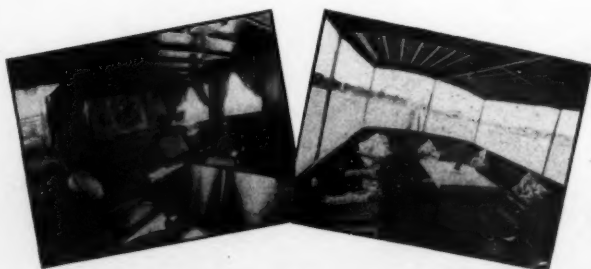


A 62 FT. YACHT

A quality craft accommodating a party of six or eight—capable of the most extensive day and night cruising—offering the nearest approach to home comfort and convenience ever achieved within the compass of sixty-two feet.

Sound, practical experience has made it possible to provide three comfortable staterooms, a large deck dining saloon, a sheltered navigating bridge, spacious after deck and a pleasant sun deck without detracting in the least from the graceful lines and attractive appearance. Available with either Diesel or gasoline power.

Write or wire Dept. M for
Blueprints and Specifications



A Typical Interior View

Spacious After Deck

Henry C. Grebe & Co., Inc.
400 North Michigan Ave. CHICAGO

Boating On Arctic Waterways

(Continued from page 80)

subsequently became famous as the outstanding figure among the builders of the Canadian Pacific Railway. Few men have been more honored in geographical nomenclature. His name is (or rather his names are) spread upon the map of Canada, so that one can follow the upward course of his progress by the distribution. There is a Donald station on the Canadian Pacific, while a Mount Sir Donald rears its lofty pinnacle above the Great Glacier of the Selkirks. Towns, cities, lakes, rivers, parks, schools and colleges carry the name of Strathcona from coast to coast.

Unfortunately, all of Lord Strathcona's associations with the Mackenzie basin came in the first stage of his career. And so we had the station of Smith, where the Peace River Railway crosses the Athabaska, and Fort Smith and Smith's Landing, on the Slave, with Smith's Rapids roaring between. The confusion arising from this plethora of Smiths along a single frontier waterway has recently been mitigated by the supplanting of the name Smith's Landing by that of Fitzgerald.

(To Be Continued)

New Pump Distributors

The M. L. Oberdorfer Brass Company of Syracuse, N. Y. has appointed Jordan B. Parsons Associates, Inc., as the export representatives of Oberdorfer pumps for all foreign fields, excepting Canada. With headquarters in the Woolworth building, New York City, the Parsons organization has contacts in all parts of the world.

The complete line of Oberdorfer pumps for marine use covers an extensive range. A feature item is the new Model B automatic electric bilge pump, which operates on a 6 or 12-volt battery. It is a powerful compact pumping outfit, small in size and capable of pumping up to 350 gallons per hour. Both as a convenience and as a protection in case of an unexpected leak with no one on board, this pump is finding much favor among boat owners.

The Oberdorfer hand bilge pump is used where current is not available and as an auxiliary to a motor driven outfit. It is made of non-corrosive materials with detachable handle for convenient storage in a locker when not in use.

Oberdorfer gear type circulating pumps of non-corrosive bronze are made in all standard sizes, types and forms to fit any make or model of marine engine. They possess double bearings, full lubrication facilities, and their long life and dependability mean much to the smooth running of motors.

Oberdorfer motor driven outfits serve many useful purposes aboard boats. They are used for bilge pumping, galley and lavatory pressure water supply, deck flushing, fire use, fuel pumping, and many other purposes. The gear type is now available with 1/6, 1/4, 1/3 and 1/2 h.p. motors. The Oberdorfer motor driven centrifugal pump has a capacity of 2,100 gallons per hour and is driven by a 1/4 h.p. motor. All Oberdorfer motor driven outfits are available in standard voltages for both direct and alternating currents. They are equipped with General Electric Company motors, which can be serviced in all parts of the world.

In addition to the line of marine pumps, Jordan B. Parsons Associates, Inc., will represent Oberdorfer pumps for industrial and other uses.

Scripps Enlarge Engineering Department

L. Hobart Grisell, recently chief engineer of Gar Wood, Inc. and the latter's subsidiary, Detroit Marine-Aero Engine Company, has recently joined the Engineering Department of the Scripps Motor Company.

In commenting upon Mr. Grisell's appointment, A. J. Downey, vice-president and general manager of the Scripps Motor Company, remarked:

"Mr. Grisell brings to us a wealth of first-hand experience with boat installations and operation problems gained from a two and a half year term as chief engineer of Gar Wood, Inc. during which time he not only engineered the conversion of Liberty and other aviation engines into marine jobs, but was also very closely identified with the mechanical design and development of the well-known standardized Baby Gar, as well as several of the Wood racers, including the latest, Miss America VII."

He is a graduate of Purdue University, School of Mechanical Engineering and the School of Military Aeronautics at Princeton University. Before entering the marine field he was identified with the engineering staffs of several of the prominent motor car companies. His addition to our already existing engineering staff places our company in a position second to none in Engineering talent.

OCTOBER, 1928



Close-up of the two 12-cylinder 1,000-H.P. Packard marine motors in Miss America VII owned by Gar Wood, who is sitting at the right.

World's Fastest Speed on Water

92.838 m.p.h

Established by PACKARD

TO the international renown that Packard power has won on the land, in the air and on the water is added this latest achievement of establishing a new world's speed record for motor craft.

At Detroit, September 4th, Gar Wood's Miss America VII, powered with two 12-cylinder 1,000 H.P. Packard marine motors and driven by George Wood six times over a one-mile course, established a new world's record with the astounding speed of 92.838 M.P.H., the

average for the six one-mile trials. The fastest trial was 93.722 M.P.H.

Packard marine motors hold the same undisputed leadership that Packard cars enjoy on the boulevard and that Packard engines maintain in the air. A leadership achieved through over a quarter of a century devoted to the development of specialized knowledge and experienced skill in the building of fine power plants.

PACKARD MOTOR CAR COMPANY
DETROIT MICHIGAN

PACKARD

ASK THE MAN WHO OWNS ONE

Mention MOTOR BOATING, 5th St. at Eighth Ave., New York

92.838

GAR WOOD'S

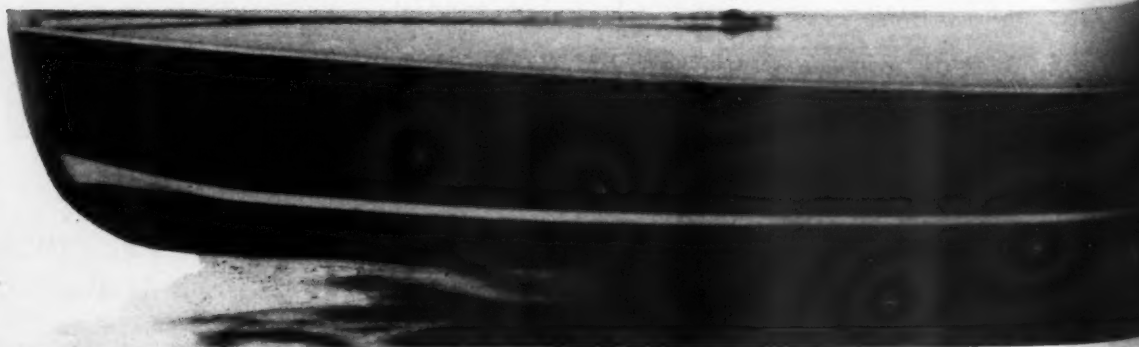
Sets New

Miss America VII, like the six other Miss Americas, Miss Detroit II and III, Baby Gar, Gar Jr., and other famous Gar Wood boats, was designed and built in Gar Wood's own boat building plants under the personal supervision of Gar Wood himself. All of these boats have been driven and financed by Gar Wood himself. Through his ingenuity, directorship and capital they have all been made possible.

GAR WOOD'S long standing reputation as designer and builder of the world's fastest motor boats is confirmed again by two more history making achievements. At the Detroit Regatta, September 1st to 3rd, Miss America VII successfully defended the Harmsworth

International Trophy which Gar Wood has held continuously since 1921. The following day, September 4th, Miss America VII established a new world's record of 92.838 miles per hour, breaking the standing world's record by more than 12 miles an hour, established by Gar Wood in his Miss America II in 1921.

Gar Wood standardized boats include Baby Gar open and sedan Runabouts and Express Cruisers.



OCTOBER, 1928

Miles Per Hour

MISS AMERICA VII World's Record

GAR WOOD Records and Victories

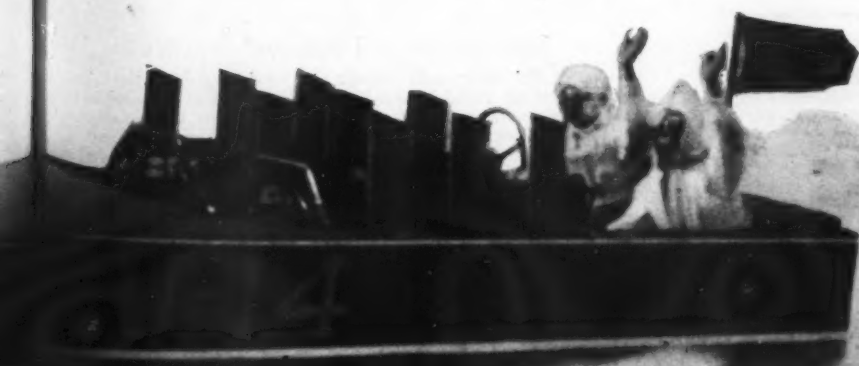
Below are a few of Gar Wood's many triumphs on the water.
He holds the largest collection of motor boat trophies in the world.

- 1917 Wins Gold Cup with Miss Detroit II.
- 1918 Wins Gold Cup with Miss Detroit III.
- 1919 Wins Gold Cup with Miss Detroit III.
- 1920 Wins Gold Cup with Miss America I.
- 1920 Wins Harmsworth Trophy from England with Miss America I. Speed 76.655 M.P.H.
- 1921 Wins Gold Cup with Miss America I.
- 1921 Established world's record of 80.567 M.P.H. with Miss America II.
- 1921 Successfully defends Harmsworth Trophy with Miss America II.

- 1921 Beats express train schedule from Miami, Fla., to New York with 50 ft. express cruiser Gar Jr., 1,257 miles through open sea. Time 47½ hours.
- 1921 Wins first leg on Wood-Fisher Trophy with Baby Gar.
- 1922 Wins second leg on Wood-Fisher Trophy with Baby Gar.
- 1922 Wins third leg on Wood-Fisher Trophy and permanent possession of the cup with Baby Gar II.
- 1924 Wins first leg on Fisher-Allison Trophy with Baby Gar IV.
- 1925 Wins second leg on Fisher-Allison Trophy with Baby Gar IV.

- 1925 Beats Twentieth Century Limited from Albany to New York with Baby Gar IV, 139 miles in 2 hours 50 minutes.
- 1926 Successfully defends Harmsworth Trophy, establishing new record of 72.703 M.P.H. in competition for a five-mile lap.
- 1926 Wins third leg on Fisher-Allison Trophy and permanent possession of the cup.
- 1928 Successfully defends Harmsworth Trophy with Miss America VII.
- 1928 Establishes new world's record of 92.838 M.P.H. with Miss America VII.

GAR WOOD, INCORPORATED, DETROIT



Mention MoToR BOATING, 57th St. at Eighth Ave., New York.

Yard and Shop

(Continued from page 62)

Baby Gar Makes Good Showing

An interesting example of what is possible with an everyday stock model 28 Baby Gar sedan runabout is offered in the account of a trip to the Newport regatta by Arthur J. Utz, New York manager of the Boat Division of the Wood Hydraulic Hoist and Body Co.

After using the aforementioned runabout for some time as a demonstrator, Mr. Utz and his wife drove down to the regatta at Newport, principally to exhibit the runabout. The day after arriving they merely removed two five gallon gas cans and the full canvas cover and entered the boat in all four races for which it was eligible, Mrs. Utz driving. In spite of the fact that they were running a sedan against open boats they made a very acceptable showing, hauling ahead of the whole field except for a couple of stripped open runabouts.

The next day the boat was put in the Ladies' race, Mrs. Utz driving again. They finished third but were awarded the Mrs. Vincent Astor trophy because Mrs. Utz drove the boat with only two seconds variation in the six mile race. It is interesting to note that the runabout was not groomed for racing or pepol in any way.

Immediately after the races at Newport a resident at Narragansett Pier was so attracted by the appearance and performance of this Baby Gar that he insisted on buying it at once.



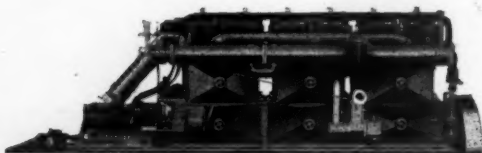
N. Y. Yacht. Launch & Engine Co.'s seventy-seven foot cruiser. Speed 14 miles per hour. Powered with a six-cylinder, 100-H.P. Twentieth Century Marine Motor.

Cruising Comfort

TRUE comfort afloat must equal or even surpass the conveniences of your home. Cruising in the coastwise waters—seeking out the secluded harbors, with their cooling breezes—surrounded by every appointment—these are the things that make yachting popular.

The New York Yacht, Launch & Engine Company specializes in craft that are thoroughly seaworthy and provide the maximum amount of comfort aboard. In the standardized 77-foot cruiser pictured above, this has been accomplished to a remarkable degree. There are four staterooms providing complete privacy for members of your party, together with a large deck dining room, galley, two bathrooms, etc.

We will be glad to send you a complete description and illustrations of this beautiful boat.



TWENTIETH CENTURY MARINE MOTORS are used to power our standardized boats. These power plants are built in our own shop in two models, four- and six-cylinder, 60 and 100 H.P.; our interest covers both the boat and its power plant.

NEW YORK
YACHT, LAUNCH & ENGINE
CO., Inc.

MORRIS HEIGHTS, NEW YORK CITY



Pal, a 725 hydroplane owned by Russell Dowers of Dowers of Rising Sun, Ind., winner of the Webb trophy at the St. Louis regatta

Webb Trophy Won by Pal

In a recent issue of MoToR BoatinG—in which the St. Louis regatta was described in detail an unfortunate error occurred in naming Miss Houston IV the winner of the Tom Webb trophy. It is well known that Pal, a 725 hydroplane piloted by Russell Dowers of Rising Sun, Indiana was the winner of this famous prize and the statement was just one of those things that is bound to happen occasionally where a great deal of diversified data is constantly handled. Thus the Webb trophy goes for the second time to the small town of Rising Sun. Whitlock took it there in 1926 after his Hoosier Bo had won it at the Louisville regatta.

Storage for a Thousand Yachts

One of the finest yacht storage and service yards on the East Coast is to be found in the Victory Yacht Yard at Squantum, Mass. Including both wet and dry storage, there are accommodations for nearly one thousand yachts of all types and sizes. The wet basins are six in number, each 50 feet wide by 375 feet long. There is fifty feet of headroom under the door headers. Sliding steel doors close the end of each wet slip, affording absolute protection from the elements. All the buildings in the plant are of the steel and glass construction and are clean and light.

The dry storage consists of ten bays divided by steel columns. In fact, the floor space in the plant is immense and enables the storage or removal of any boat without the moving of others already in position. There are Crandall marine railways running well up into each bay.

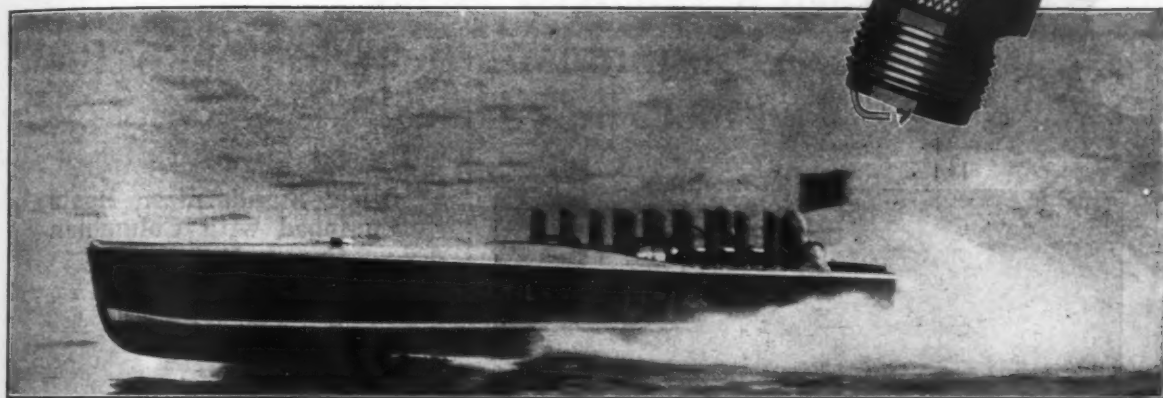
Aside from the actual storage buildings there are all the facilities for high-class marine repair work. Every operation from building to painting can be taken care of by the yard.

Although the business of marine repair work and yacht storage is necessarily more or less a local thing, in this case the yard is so located and is so accessible from the west by means of the now toll-free Cape Cod Canal that yachtmen at some distance could easily make use of its facilities.

(Continued on page 92)

OCTOBER, 1928

92.83 miles per hour with CHAMPION Spark Plugs



Miss America VII, Champion-equipped, sets new world's speed record

HAVING conclusively established his title to the Harmsworth International Trophy, indicative of the world's speed supremacy on water, Gar Wood's Miss America VII, driven by his brother George Wood, established a new world's straightaway speed record for a mile with the terrific speed of 92.83 miles per hour.

Added to the long list of world's records made with Champion Spark Plugs on land, sea, and in the air, it was to be expected that this latest and most impressive record should be made with Champion equipped engines.

It is in the high speed, high compression racing engines devel-

oping terrific heats that the exclusive Champion sillimanite insulator—the compression tight construction—and the special analysis electrodes—mark Champion as the better spark plug. No greater tribute to the remarkable dependability of Champions is needed than their constant use by famous racers the world over.

Whether you own a fast runabout, high speed commuter, comfortable cruiser, or an outboard power craft, you will obtain maximum engine performance and satisfaction from Champion Spark Plugs. There is a dependable Champion for every marine engine.

CHAMPION SPARK PLUGS

Make Clean Sweep
Over Labor Day

Miss America VII, driven by George Wood, established new world's straightaway mile speed record. Speed 92.83 miles per hour.—Detroit, Sept. 4th.

Miss America VII, driven by Gar Wood; Miss America V, driven by George Wood; and Miss Los Angeles, driven by Stanley Reid, the three boats to finish in the International Harmsworth Trophy Race, were all Champion equipped.—Detroit, Sept. 3rd.

Rainbow VII, driven by Commodore Harry Greening, won the North American championship with Champions.—Detroit, Sept. 3rd.

Baby Gar, driven by Orlin Johnson, won free for all stock runabout race with Champions.—Detroit, Sept. 3rd.

Among many unusual outboard records the following is outstanding. A. J. Pawling, in a Century Flier, recently made the fastest time in competition with an average of 35.25 miles per hour for five miles.

CHAMPION SPARK PLUG COMPANY, TOLEDO, OHIO

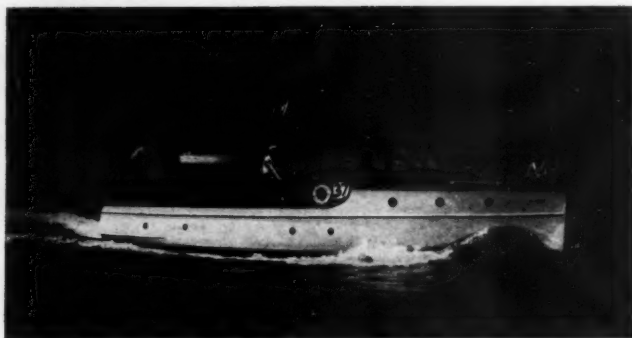
Mention MoTOR BOATING, 57th St. at Eighth Ave., New York

COLUMBIAN BRONZE PROPELLERS



Cap'n Allswell says:

"Columbians help to make the Fleetwings fleet!"



Fleetwing Cruiser

The winner of the Bear Mountain handicap race held by the Colonial Yacht Club on July 8th was a Fleetwing Cruiser—The MYREL II, owned by Phillips Samuel—demonstrating that Fleetwings are not only cruisers of luxurious comfort, *but speedy*. All Fleetwings are equipped with Columbian Propellers, rudder outfits, struts and other Columbian manganese bronze parts.

*May we send you our catalog,
"Propellers in a Nut Shell"?*

COLUMBIAN BRONZE CORP.

208 North Main St.
Freeport, Long Island, N. Y.

Other Standardized Boats
Equipped with Columbian
Bronze Propellers:

Elco
MOTOR BOATS
The Elco Works

FANTOM
FANTOM BOAT WORKS

Hackercraft

LÜDERSHIP
Luders Marine Construction Co.

BABY CAR
BABY CAR INCORPORATED

DODGE Sport-a-Bout
HORACE E. DODGE BOAT WORKS, INC.

DAWN

New York Yacht Launch and Engine Co.

Fleetwing
Greensport Basin & Construction Co.

A.C.F.

CRUISERS

Chance Marine Constrn. Co.
—and many others

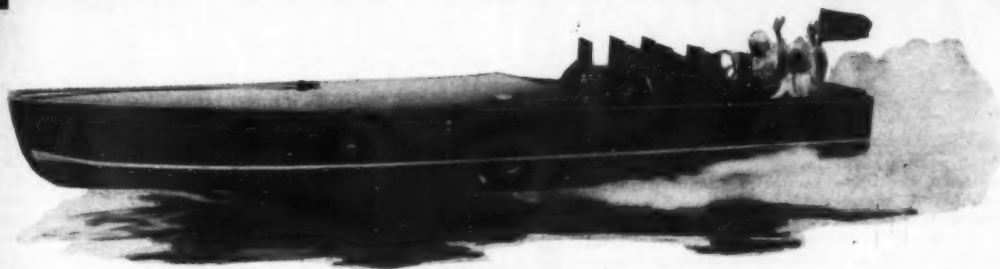
SKEGS
STRUTS
RUDDERS

CUTLESS
RUBBER
BEARINGS

Runge

COLUMBIAN

BRONZE PROPELLERS



Again Columbians Win!

Columbian-equip, Gar Wood's
Miss America VII
MAKES NEW WORLD RECORD

WHEN Gar Wood won the 1928 International Harmsworth Trophy, making a new world record of 92.838 m.p.h., he proved the superior quality of Columbians—as has been done many times before in notable racing events.

His Miss America VII was equip with two Columbian Propellers which handled efficiently the tremendous power of two 600 h.p. Packard engines.

Write for
"Propellers in a Nut Shell"

92.838
M.P.H.

COLUMBIAN BRONZE CORP., 208 No. Main St., Freeport, L. I., N. Y.

SKES
STRUTS
RUDDERS

CUTLESS
RUBBER
BEARINGS

Mention MoToR BOATING, 57th St. at Eighth Ave., New York

Yard and Shop

(Continued from page 88)

Fast Boat Equipment

The Canadian speedboat, Rainbow VII, piloted by Commodore Harry B. Greening of Hamilton, Ontario, won the North American championship trophy at the Detroit regatta September 2nd. Rainbow VII made an average speed of 60 nautical miles per hour over the 30-mile course.

A Buffalo boat, Curtis Wilgold, finished second, Baby Gar II came in third and Baby Skylark finished fourth. The first three boats were equipped with Joes Reverse Gears.

The Harmsworth trophy challenge boat, Estelle II, of Miss Marion Barbara Carstairs, did a beautiful nose dive into a swell and went to the bottom of the river during the first heat of the international race September 1st. Old Man Joe, an interested spectator, said: "I'm sure sorry for Miss Carstairs that her boat ducked under and lost the race. 'Course divers will fetch it up again, but if she'd had a Joes Gear aboard like the others it would have reversed her fast enough to pull her nose up and keep her from going plumb under."

The Snow & Petrelli Mfg. Co. reports a steady increase in the number of boats using Joes Gear. Owners of all kinds of craft, from speedy runabouts to big tugs, find this gear invaluable for quick reverse in rough water or around crowded docks. Women are demanding it in the boats they drive because of the dependable control it gives them over their craft at all times.

Storage for Eighty Runabouts

At the Lyon-Tuttle yard at City Island, N. Y. there is rapidly nearing completion a 80 by 100-foot storage building built on spiles out over the water. This is the latest improvement that this comparatively new corporation has attempted and it promises to be one of the finest storage sheds to be found in any yacht yard.

It is two and a half stories high and will accommodate at least eighty runabouts. The first two floors will be for the boats and the remaining space is to be taken up by lookers for storing the equipment of any and all boats laid up in the shed or in the yard. Construction is also being started on a smaller building to be used as an addition to the already spacious machine shop of the plant.

This Lyon-Tuttle yard was once the well-known Kyle's Shipyard of City Island and it is being turned into one of the finest yacht marine railways and service stations on the East Coast.

More About Wilmington

It may be of interest to participants in the National Outboard Championship Regatta to be held at Wilmington, North Carolina, October 5 and 6, to know that the committee in charge of taking care of race drivers and their outfits, is making special effort to arrange for every comfort and convenience possible that contestants may expect.

The headquarters for the racers will be located in a large building at the base of a slip abreast of the course. In this building visiting race drivers may store all of their equipment, boats, motors, etc. Those wishing to stay near their equipment and sleep in this building will be furnished cots, upon request. Lockers will also be provided to take care of their personal belongings and for the care of their motors. There will be testing stands for drivers to work on their motors and tune them, and heavy tools will be provided to aid in any work that they wish to do. Runways from this building reach to the slip, so boats can easily be launched from a long floating dock. Toilet facilities and shower baths will also be available. An improvised restaurant will cater to the replenishment of the inner man. All facilities referred to will be provided without charge, except restaurant service.

Gasoline and oil will be furnished contestants from stands established by the various oil companies, immediately contiguous to the slip.

A few yards from this building and also abreast of the course, will be Main Headquarters where other services will be rendered and conveniences furnished such as telegraph, telephone, writing materials, etc.

Those who may wish hotel accommodations will be able to obtain same in several good hotels, European plan, at prices of \$1.50 and up.

As a final word, contestants may be assured that they will be well taken care of in good style and in a way which conforms to the true tenets of famous Southern hospitality.

MARBLEHEAD ANTI-FOULING GREEN BOTTOM PAINT



You must use it to secure a Clean, Smooth, Durable and Slippery Under-Water Surface—Prevents Marine Growth, Barnacles and Borers. Has no equal in Tropical and Semi-Tropical Waters. It takes a wonderful Racing Finish. Covers Twice the Surface and Cuts the first cost in half.

*Two Handsome and Luminous Colors
— Emerald and Light Green —
All Double Strength*

STEARNS-McKAY MFG. CO.
Marblehead, Mass., U. S. A.



Photo by Rosenfeld

**VALENTINE'S
VALSPAR**

VALENTINE & COMPANY, 386 Fourth Ave., N. Y. C.

The Seven Seas

THOUGH you sail the seven seas—anchor in a thousand ports—you'll sight no finer fitter craft than those which boast a Valspar finish.

Take for example such famous boats as the Lyndonia, shown at the left; the Shadow K, the Lanai, Miss America, Teaser and Greenwich Folly. Every one Valsparred.

GAR WOOD BOATS are fitted with KERCHEVAL SEDAN TOPS



BABY GAR Sedans, Dodge Watercars and other well known boats have Kercheval Tops. Gar Wood in breaking world's record used a special Kapoc suit of our design, and Miss America VII was fitted with Kercheval made cushions.

Let us quote on your work.

KERCHEVAL UPHOLSTERING CO.
18519 Mack Avenue Detroit, Mich.

OCTOBER, 1928

Chrysler

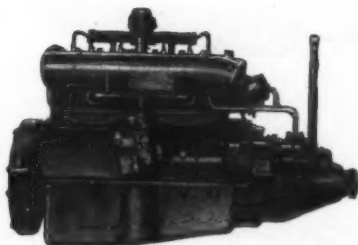
MARINE ENGINES

The Best Engine in the World at Its Price For Cruisers

MOTORBOAT builders and enthusiasts properly regard Chrysler Marine Engines as the most rugged and dependable on the market.

Large diameter 7-bearing crankshaft, automatic carburetor drain, special water pump construction, flywheel on forward end with oversize reverse gear in rear, simplicity of clutch and reverse gear adjustments, are some of the many features of these engines for which you have had to pay a much higher price in the past.

Chrysler Marine Engines, 106 h. p. Imperial



Marine Engine and the new 82 h. p. Royal Marine Engine are installed in Chris-Craft, Dodge Watercar, Dart Runabouts, and Corsair Cruiser and Crusader. With reduction gears they are now suitable for cruisers even up to 55-footers.

We will be glad to explain to you the many new and outstanding features which have been responsible for the fact that during the past year more than one-half of all runabouts built were equipped with Chrysler Marine Engines.

Address your request for information to the Marine Engine Division, Chrysler Corporation, Detroit, Mich.

New Corsair Crusader equipped with Chrysler Imperial Marine Engine. Length, 30 feet; beam, 9 feet 3 inches; draught, 2 feet 5 inches; speed, 18-20 miles per hour.

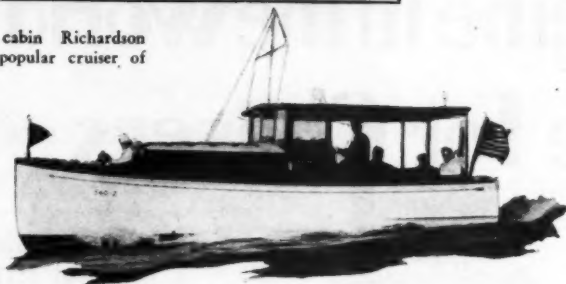


Mention MoToR BOATING, 57th St. at Eighth Ave., New York

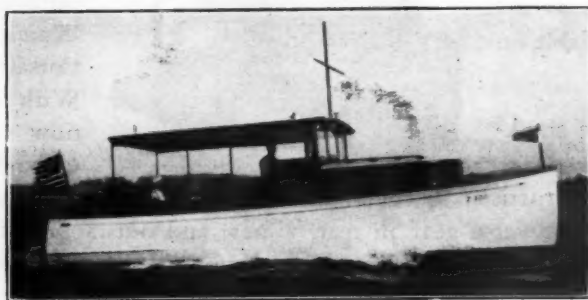


The standard single cabin Richardson Cruisabout, the most popular cruiser of its size ever built.

Here Are the Five Types— *Richardson* MASTER Cruisabout



The single cabin Richardson Cruisabout, with a spacious bow cockpit.



Custom boat individuality with standardized production economy.

The double cabin Richardson Cruisabout, with cockpit amidships.

ANY of these five types of Richardson Cruisabouts may be had with a choice of several motors, giving speeds from 11 to 20 miles per hour. Prices range from \$3,000 to \$5,000, depending upon equipment and size of power plant.

Let us submit prices and complete details.



The Richardson Sportabout model, with forward cockpit control and cabin aft.

The Richardson Fishing Boat has a large open cockpit with small cabin forward containing toilet, wash basin and locker.



WILBUR H. YOUNG & COMPANY

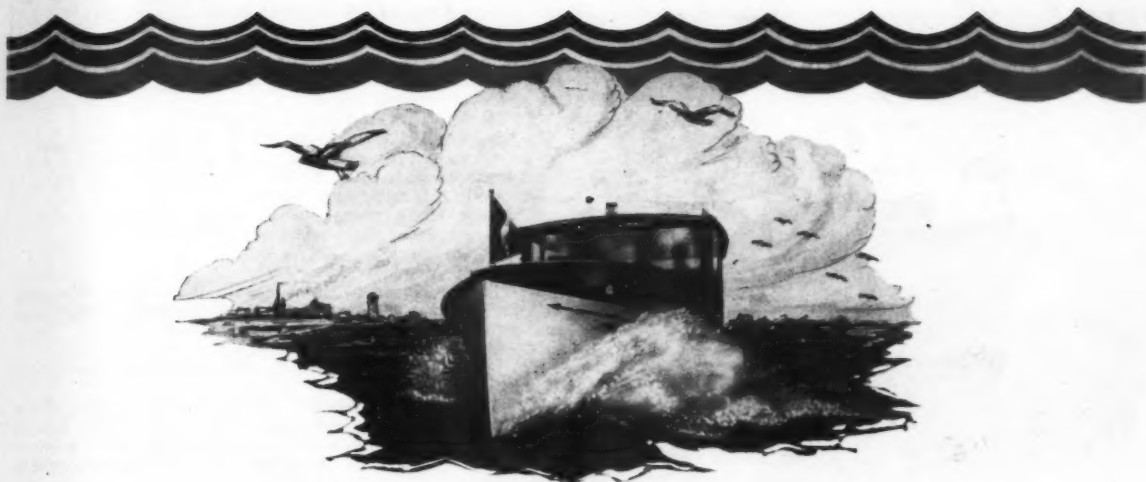
MARINE SALON

262 WEST 57TH STREET (Near Broadway)

Telephone: Circle 2580-2581

NEW YORK, N. Y.

OCTOBER, 1928



GET READY FOR FLORIDA NOW!



A NEW DAY CRUISER!
For fishing, or day cruising off the coast, the new Richardson day cruiser is unequalled!

Roomy, open cockpit, easily and quickly protected against a sudden storm—a small cabin forward, equipped with toilet, wash basin, and locker space—Gray 8-100 engine, driving it at 18 miles per hour—the price, \$3585.

Complete details of this new cruiser will be sent at your request. Write today!

There isn't a spot on the Florida coast that you won't enjoy more for having a Cruisabout!

Get the Cruisabout! Get the family together! Pile in! And there you are!

It's as much your home as anything fastened to land! And it goes with you, just about anywhere, at a minute's notice.

Florida—or anyplace on earth by water—will mean more to you than ever before, with your Cruisabout!

The Cruisabout is every inch a boat! She handles easily in smooth sailing or in a blow. The inside of the cabin is fully equipped for your comfort—sleepy, easy berth-lounges; a real galley; a well fitted toilet room. Her Gray engine has both power and speed!

Your mind will be easier if you order your Cruisabout now! Write today for the complete detailed story of this boat. At \$3585, it is an unequalled value.

RICHARDSON BOAT COMPANY, INC.

374 SWEENEY STREET

NORTH TONAWANDA, NEW YORK

DISPLAY ROOMS IN

New York

Chicago

Detroit

Philadelphia

Boston

Washington

Amityville, L. I.

Galveston

Richardson

MASTER Cruisabout 28'

Mention MoTOR BOATING, 57th St. at Eighth Ave., New York

The Liggett 34 -



READY FOR THE FLORIDA SEASON

Here's a smart cruiser with speed ranges from 13 to 20 miles per hour . . . plenty of stamina for dusty weather at sea . . . unusual cabin, galley, and toilet layout that provides maximum comfort for four . . . a really large after-cockpit that may be completely enclosed . . . a beam of nine feet six inches with extra high freeboard, insuring stability and dry riding qualities . . . with a price range that defies comparison — quality considered.

Now ready for Florida delivery from stock.

13-Mile Model	17-Mile Model	20-Mile Model
\$5475 complete	\$5875 complete	\$6275 complete

Kermath 65, 125 or 150 H.P. six-cylinder models are the standard motor equipment for the Liggett "34."

Write for descriptive literature.

A. G. LIGGETT & SON COMPANY

Boat Builders for 30 Years

WYANDOTTE

MICHIGAN



Practical Knots and Splices

(Continued from page 42)

Frequently used on shipboard to temporarily shorten a line and good under steady strain but will not stand surging unless eyes are seized to standing parts.

44. Monkey Fist on a Bow: No value.
45. Half Hitch on a Sheep Shank: Same value as 43.
46. Permanent Sheep Shank: A sheep shank using overhand knots at each end. Knots will jam. Not practical.
47. Rolling Hitch Sheep Shank.
48. Clove Hitch Sheep Shank: Sheep Shank with a clove hitch on each end. Good temporary sheep shank.
49. Sheep Shank.
50. Sheep Shank.
51. Square Knot on Sheep Shank: Made by making four half hitches on top of each other and reaching through loops and pulling through the third hitch from each end.
52. Sheep Shank.
53. Jam Splice: No practical value unless ends well seized to standing parts.
54. Multiple Sheep Shank: Made by bighting slack of line and with both standing parts place half hitch over all ends of bight. This is used when there is considerable slack in line to be temporarily taken up. It is well to seize bights to standing parts.
55. Damn Fool's Knot or Bow: No practical use except to slip over a man's wrists, pull tight and secure with overhand knot in lieu of handcuffs.
56. Sliding Monkey Fist: No practical use.
57. Double Overhand on a Bight: Used to shorten a bight of line but not practical as it will jam.
58. Sheep Shank.
59. Spanish Ending on Braided Line: The eight strands composed of hemp twine are first unbraided and crowned and worked back under and over, gradually tapering after the second tuck.
60. Studding Sail Tack or Buntline Hitch: An inside clove hitch around the standing part. This hitch when pulled tight will jam and never slack up. Used to make fast tack of studding sail.
61. Timber Hitch: Make a turn with end of line around spar to and around standing part then back and under its own part two or more times, according to size of spar. This hitch is used for lifting spars, logs or other round objects, but not safe when used to lift boxes or cases with square corners.
62. Timber and Half Hitch: Make timber hitch around spar as in No. 61 and an additional half hitch alongside of timber hitch on the side the strain is to be applied. Care being taken to apply the half hitch so that it will tighten the eye of the timber hitch. This hitch is used in towing smooth spars or logs.
63. Round Turn and Cow Hitch: Round turn of a bight around spar with both ends through loop. Safe but seldom used.
64. Halter Hitch: Turn through ring or around a post with overhand knot around standing part. Used to tie up horses.
65. Slip Halter Hitch: Same as No. 64 with the end tucked back through the body of the knot. This hitch can be easily slipped by pulling the end.
66. Inside Clinch Hitch: With end take turn around spar and inside round turn around standing part. Unsafe unless seized.
67. Eye Splice in Eight Strand Braided Hemp: Unbraid eight to ten inches of end and with small spike tuck the three strands of the end nearest the standing part through the standing part emerging with three separate strands on the opposite side. The five remaining strands must be tucked under and over with the lay so that they will cross alternately. After the fourth tuck of all strands, cut half the threads in each strand, take two more tucks of all strands, again reducing strands one-half, and continue in like manner to make a perfect taper. Braided line is always seized and this specimen is only made as a novelty.
68. Stopper Hitch: With the end of line make turn around spar, chain, wire or rope, crossing the standing part on the side to which strain is to be applied, then around standing part and back around spar or rope with two or more round turns in the opposite direction and the end to be seized to spar or rope or held by hand while strain to stopper is applied. This is a very important hitch both ashore and afloat. For example: heaving in a heavy hawser or bow line by steam capstan and the strain on which is too great to be held by hand, to belay a bowline is made in any available short piece of line, the eye of the bowline placed over the horn of the bits and a stopper hitch applied to

(Continued on page 98)

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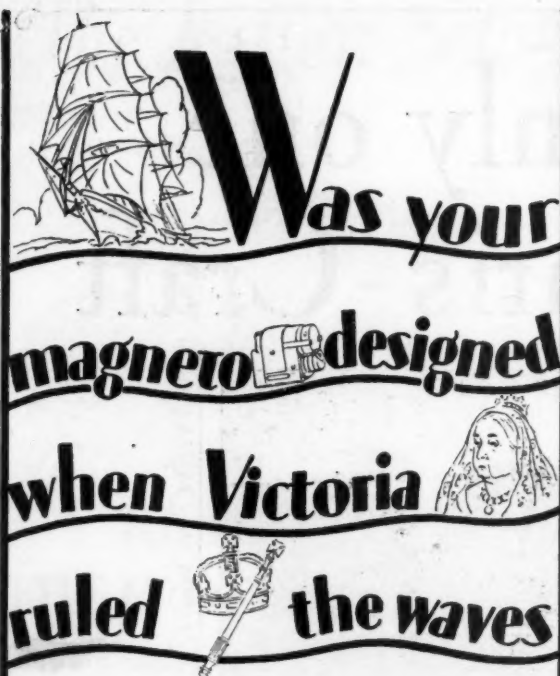
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Practical Knots and Splices

(Continued from page 96)

the hawser or line between the chock and the capstan. The hawser can then be taken from the capstan and made fast to the bits and the stopper removed.

Several years ago I was present while a heavy steel girder was being hoisted aloft by steam and wire gear. The gear, consisting of $\frac{3}{4}$ -inch steel wire, was old and started to unstrand about ten feet from the winch drum. My knowledge of how to pass a stopper prevented what might have been a serious and expensive accident.

69. Rolling Hitch: With the end of a line making a turn around spar lapping the standing part then another turn around spar between first turn and standing part. 69A: continue around the spar, 69B and bring the end up and under the second turn. 69C: Care should be used when making this hitch to begin turns on the side of the standing part in the direction of strain to be applied. If made properly and tight, this hitch will hold and not slip on a very smooth surface in one direction, but by slackening up on the standing part, can be slipped in the opposite direction. This is a valuable hitch to know ashore or afloat.

70. Four Way Hitch: This is a round turn of one line tied in a round turn of another line. Under strain of all parts will not slip in any direction. Seldom used.

71. Double Rolling Hitch: The same as a single rolling hitch but with an additional turn in second half of knot. Will not slip on line or spar in either direction. Seldom used.

72. Stopper Hitch 2: Similar to stopper hitch 68 but with an additional turn between the first turn and standing part. This is an excellent stopper, especially on wet lines, as it has a tendency to nip tighter than 68.

73. Passing a Strap: A strap is a short length of line with ends spliced together. In this method of passing a strap, the two loops are passed around the hawser with alternate crossings and one loop passed through the other and tackle hooked in same. This method is very apt to slip or is liable to kink the hawser or wire due to the pull being applied to middle of strap.

74. Slip Hitch: Pass end of line full turn around rope or spar then full turn around standing part and the bight of the end tucked under the turn on spar. Can be released by sharp pull on end A.

75. Rope Yarn Knot: Strand three or four inches of each end of yarn to be tied, marry the ends and with two opposite ends crossing, tie a square knot. This really makes a square knot around the other two strands of yarn. It is seldom used, has but half the strength of full yarn and its only advantage being to reduce the size of knot one-half.

76. Passing a Strap 2: With strap make four or more turns around wire or hawser as tight as possible until only enough bight is left to reach the bight of first turn, which is then passed through and tackle hooked on. This strap to be used in a direction eye is pointing. Of the many methods of applying a strap I consider this the best as it will grip tighter and will not kink the wire or hawser.

77. Passing a Strap 3: Pass the bight of a strap three or more round turns around hawser or wire and the bight through other bight and hook on tackle. Some prefer in this method to hook tackle in both bights. Straps are very frequently used on shipboard for setting up rigging, getting an extra purchase on a line, or if a ship is stranded, with an anchor to deep water, strap can be applied to anchor line, and with tackle to strap and windlass extra purchase can be applied.

78. Man Rope Knot Showing Two Part: Put temporary seizing on rope about one foot from end, also seize end of each strand, unlay strands to seizing, begin knot with any strand and bring it around body of rope and up alongside body of rope behind its own part. 78A-end-D. Take the next strand around and up behind its own part. 78A-end-E. The third strand 78A-end-F. Take around body of rope and alongside of same and up between parts of D and E as in 78B. Pull all strands equal and you will have 78C. This knot is sometimes used on man ropes and on lanyards used in rigging of old time sailing ships before the days of turn buckles, also in lanyards for wooden buckets.

79. Single Diamond Knot: As in the man rope knot, seize rope and strand to seizing. Hold rope in left hand with the three strands reversed and paralleling body of rope; you now have three loops as in 79A. Now take strand D left to right around loop F and through loop E. See 79B. Then strand F around loop E and through loop D. Then strand E around loop D and through loop F. Pull all strands snug and even and you will have 79C. This is simply a decorative knot for man-ropes.

80. Double Diamond Knot: Make a single diamond knot as

(Continued on page 100)



Baltimore, Maryland.
This map is one of a series. Watch for succeeding ones. Gargoyle Mobiloil is on sale here and in other ports throughout the world.

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If your engine is not listed here, write to the Vacuum Oil Company, 61 Broadway, New York. The winter recommendations specified on this Chart should be followed when freezing temperatures below 32° F. are encountered, unless the engine is kept warm while not in operation.

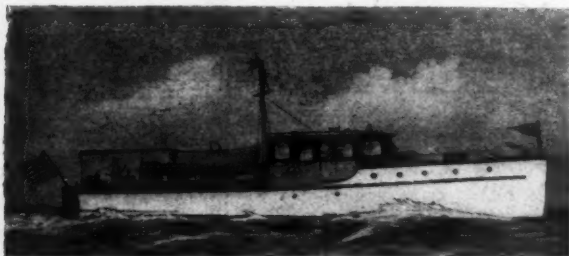
NAMES OF MOTOR BOAT ENGINES	1928		1927		1926		1925	
	Engine	Winter	Engine	Winter	Engine	Winter	Engine	Winter
Buda, BM-6, BM-6S, GM-6, BM-A-6S	BB	A	BB	A	BB	A	BB	A
Caille Master 5-Speed Twin	A	A	B	A	A	A	A	A
All other outboards	A	A	A	A	A	A	A	A
Chrysler Imperial Marine	B	A	B	A	A	A	A	A
Elio	A	A	A	A	A	A	A	A
Evinrude	A	A	A	A	A	A	A	A
Gray, 4-30, H-30, 6-72, H-75, 8-100	BB	A	BB	A	BB	A	BB	A
A-6 & Z-6	A	A	BB	Arc	BB	Arc	BB	Arc
O, 1-5, 2-10, 2-cycle	A	A	A	A	A	A	A	A
All other models	A	Arc	A	Arc	A	Arc	A	Arc
Hall Scott	A	A	A	A	A	A	A	A
Johnson	A	A	A	A	A	A	A	A
Kermath, 1 to 20 h.p. inchoave	A	Arc	A	Arc	A	Arc	A	Arc
50, 70 & 100	BB	A	BB	A	BB	A	BB	A
9, 85, 125, 150	BB	A	BB	A	BB	A	BB	A
All other models	BB	A	BB	A	BB	A	BB	A
Lathrop, 100 & Mystic	BB	A	BB	A	BB	A	BB	A
All other models	A	A	A	A	A	A	A	A
Lockwood, 41	A	Arc	A	Arc	A	Arc	A	Arc
All other models	A	A	A	A	A	A	A	A
Palmer, L.H. Little Huskie	A	Arc	A	Arc	A	Arc	A	Arc
2-cycle	A	A	A	A	A	A	A	A
NK, NK, NL, F, ZR, PNR	B	A	B	A	B	A	B	A
All other models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Red Wing Thorobred, Red Top-BB4, BB6	BB	A	BB	A	BB	A	BB	A
High Speed	BB	A	BB	A	BB	A	BB	A
All other models	A	Arc	A	Arc	A	Arc	A	Arc
Scripps, FG Jr., Gold Cup	A	Arc	A	Arc	A	Arc	A	Arc
G6, H6	BB	A	BB	A	BB	A	BB	A
F4 & F6	BB	A	BB	A	BB	A	BB	A
All other models	A	Arc	A	Arc	A	Arc	A	Arc
Standard, N. J.	BB	A	BB	A	BB	A	BB	A
Seasame Extra Reserve	BB	A	BB	A	BB	A	BB	A
Sterling Neptune	A	Arc	A	Arc	A	Arc	A	Arc
All other models	A	A	A	A	A	A	A	A
Universal Superfour GLR	BB	A	BB	A	BB	A	BB	A
All other models	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

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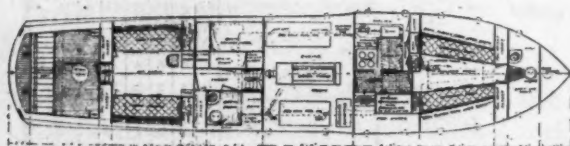
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WRITE FOR FOLDER A-5

Practical Knots and Splices

(Continued from page 98)

79 and instead of laying up the strands follow each strand around. For decorative uses.

81. Marlin Spike Hitch: Is used frequently on shipboard and rigging ashore. The hitch is made in marlin or rope and a spike or bar inserted in the loop and used as a lever. In the hitch as illustrated, the leverage or pull would be from left to right, reverse the hitch for pull in opposite direction.

82. Eye Bowline: After tying a bowline, pass end of standing part back through loop and follow its own part around and under both standing parts.

83. Gut or Leader Splice: Made by overlapping ends of material to be tied and tying an overhand with both parts. Used to splice gut leaders by fishermen. Wet gut to soften before tying.

84. Crown: Made with any number of strands, beginning with any strand, lay strands over each other and the last strand under the first. This is used as the beginning of a Spanish ending in a rope's end also to crown a Mathew Walker knot.

85. Wall: Made with any number of strands, put second strand around end of first strand and third strand around second and through loop of first.

86. Single Mathew Walker: First make a wall as in 85 and pull each strand snug and even, then on top of this wall with the ends make a crown as in 84. This knot is not serviceable.

87. Double Mathew Walker: With the single Mathew Walker follow the strands of the wall around and continue to follow the strands of the crown. This makes a handsome decorative knot for manropes and tiller ropes.

88. Manrope of Three Parts: This knot is made similar to 78 except that each strand is taken around the body of the rope and up through and inside its own part. The first strand around the body of the rope and inside of its own part resembling an overhand knot. The second strand around the body of rope, up through the turn of the first strand and inside its own part. The third strand around the body of the rope and up through the first and second turns and inside of its own part. Pull all strands snug and even. For decorative purposes.

(To be continued)



In this boat house and basin Universal marine engines are tested out under actual working conditions

Testing Marine Motors

In the olden days the manufacturer could get along without much research and experimental work, but modern business makes it necessary for the manufacturer, who is to forge ahead, to maintain research and experimental departments to keep his products abreast of the times.

The Universal Motor Company has recognized the necessity of research and experimental work and spent thousands of dollars to equip their plant with an experimental laboratory and proving ground, as it were, for testing their motors. The proving ground consists of a concrete boathouse and experimental station where the motors are tested in various types of boats under actual working conditions.

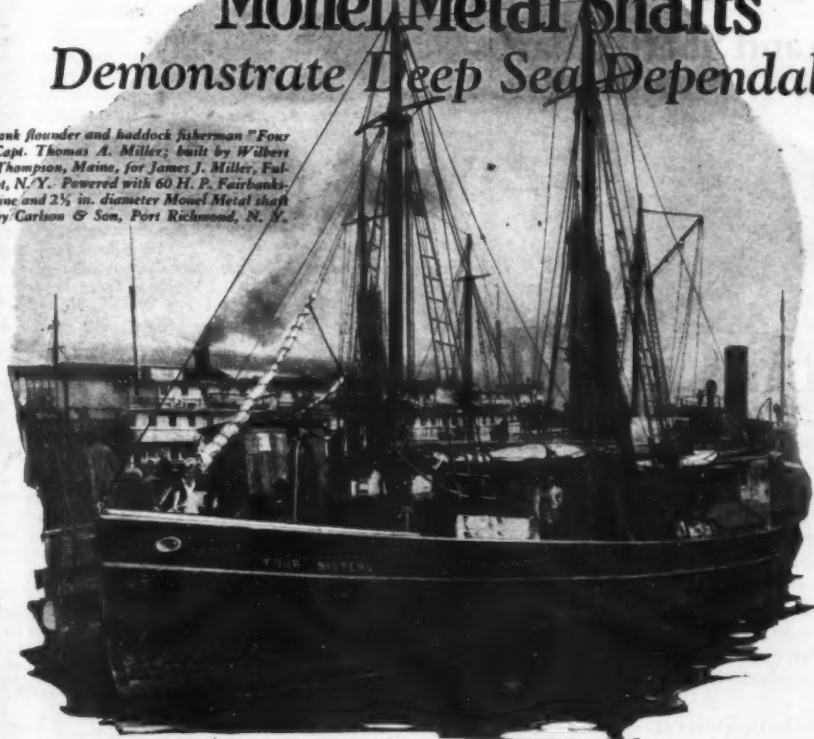
Electric hoists are used to raise the boats out of the water. A boat can be run in the boathouse, pulled out of the water, propeller changed and be placed back into the water in less than ten minutes. An accurate measured mile course is maintained near the boathouse for speed tests.

These proving grounds, or proving waters, include Lake Butte des Morts, which bounds Oshkosh on the West. From Lake Butte des Morts one can travel by boat through the Fox and Wisconsin Rivers to the Mississippi. Lake Butte des Morts also connects with lake Winnebago and lake Winnebago bounds Oshkosh on the East.

Monel Metal Shafts

Demonstrate Deep Sea Dependability

Georges Bank flounder and haddock fisherman "Four Sisters", Capt. Thomas A. Miller; built by Wilbert Morse at Thompson, Maine, for James J. Miller, Fulton Market, N.Y. Powered with 60 H. P. Fairbanks-Morse engine and 2 1/2 in. diameter Monel Metal shaft installed by Carlson & Son, Port Richmond, N. Y.



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with low-friction, mirror-like surface

EVEN though your boat may be powered with the most dependable engine that can be bought—even though your propeller may be of proven design and finest balance—if your shaft does not measure up to their requirements, you cannot have a thoroughly dependable power unit.

Monel Metal is the most dependable and the strongest as well as the toughest of all shafting material. It will not rust or pit, and in service it takes on a high polish that lessens bearing friction to the vanishing point... Monel Metal shafts are now being used on deep-sea fishing boats, high speed pleasure craft, and palatial yachts. They are delivering the same type of dependable service in every case because they have the properties that insure such service.

When you buy a Monel Metal shaft, you are buying a carefully made, cold drawn and burnished product—a shaft that has been scientifically straightened to the finest commercial tolerance. Its surface is far smoother than "turned" or "piston finish".

Build dependability into your boat by specifying a Monel Metal shaft. If your craft is being overhauled, take the opportunity to increase its value and reliability by installing a Monel Metal shaft. Ask your boat builder or shipyard mechanic about Monel Metal.

SEND FOR FOLDER—"SHAFTS THAT STAND THE GAFF"

Monel Metal is a technically controlled Nickel-Copper alloy of high nickel content. It is melted, annealed, refined, rolled and marketed solely by The International Nickel Company. The name "Monel Metal" is a registered trade mark.

Monel Metal shafts are equally appropriate for use with bearings of babbitt, bearing-bronze or Goodrich Cutless Rubber Bearings.

THE same properties that make Monel Metal so valuable for propeller shafts, also make it the ideal metal for many other marine parts and fittings. Monel Metal is available in the following shapes and forms: sheets—tubing—strip—wire rope—wood screws—nails—rivets—bolts and nuts—lag screws, etc. Have your next boat put together with Monel Metal wood screws.

For detailed information about Monel Metal in any form, write to The International Nickel Company.

MONEL METAL

THE INTERNATIONAL NICKEL COMPANY (INC.)



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Colombes (Seine)

America Keeps British International Trophy

(Continued from page 28)

repeated in 1911 but in 1912 Maple Leaf IV, owned by Sir Mackay Edgar of England defeated the American boats. Maple Leaf IV also won in 1913 at Osborne Bay. From 1914 to 1919 there was no race, but in 1920 Commodore Wood challenged with the first Miss America and was successful in bringing the trophy to this country. Since then no one has been able to defeat him although efforts were made in 1921 when Commodore Wood defended with Miss America II and in 1926 when Miss America V defeated the French challenger.

Great Britain's effort to win the trophy this year should not be discounted. Miss Castairs, the challenger, is one of England's best known sportswomen. It is reported that she has expended in excess of one hundred thousand dollars to race at Detroit this year. She started to build three boats for the race but only Estelle II proved worth while. Not only did Miss Carstairs finance the design and construction of the three boats, but she herself piloted Estelle II at Detroit.

Both Estelle I and Estelle II were designed by F. P. H. Bedle, chief motor boat designer for Messrs. S. E. Saunders, Ltd., of Cowes, who also constructed the boats. This concern has been building racing craft for more years than any other firm in England, boats of their manufacture having been represented in the British International Trophy races since the first one in 1903.

The power plant of the two Estelle's was the famous racing Napier engine. This is the same make of motor which enabled Lieutenant Webster to win the Schnieder Trophy for Great Britain at a speed of 281 miles per hour and was the engine in Captain M. Campbell's car when he set up the world's land speed record of 206.95 miles an hour.

Over a year ago Miss Carstairs gave the order to Saunders for the design and construction of the boats to represent England in the 1928 Harmsworth race. The aim was to produce a boat capable of one hundred miles an hour. Nothing of a revolutionary nature was attempted in the design but to produce a boat of extraordinary light weight and stream lined in such a manner as to reduce air resistance to a minimum.

Estelle II was particularly light in weight, the weight of the complete boat including engine, fuel and accessories being under three thousand pounds. The boat was of a single step hydroplane design.

The Napier racing engine with which Estelle II was powered was supposed to develop about 900 horse power with a piston displacement of 1,361 inches. The engine was twelve cylinders arranged in three blocks of four cylinders each. The bore is 5½ inches and the stroke 5½ inches and has an exceptionally high compression ratio of ten to one.

Miss Carstairs, who owns and drove Estelle II, has been intensely interested in motor boat racing since 1921. In 1925 by a skillful piloting, she won a number of competitions in France on the Mediterranean. In 1926, her boat Newg won the Duke of York Gold Cup Trophy on the Thames in a contest in which five nations competed. Even though Miss Carstairs was unsuccessful in winning the trophy this year, she announced that she would try again in 1929 and has already issued a formal challenge for the race.

Gar Wood's boats, Miss America V and Miss America VII, were designed and built by himself in his own plant at Algonac, Michigan. As already mentioned, both boats in all of their details were the last word in perfection.

Miss America VII was powered with two 1000-h.p., 12-cylinder Packard engines, having a piston displacement of 2490 cubic inches each. Miss America VII has a length of 28 feet and over all beam of 7 feet 9 inches. She has a single step-underbody, with the propellers located just beneath the transom. Twenty-one-inch diameter by 34-inch Columbian propellers were used. The motors turned at full speed, 2400 r.p.m. A step-up gear having a ratio of 1 to 1 1/2 was used, making the propellers turn approximately 3600 r.p.m.

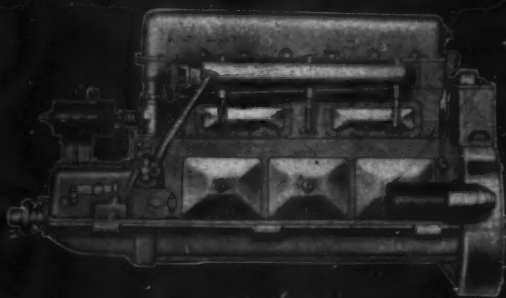
The rules governing the competition for the Harmsworth trophy provide that the course shall be at least 30 nautical miles in length and that one lap of the course shall not be less than five nautical miles in length. The rules also provide that several heats shall be held until one country has won two races. Each country represented is entitled to a team of three boats.

The time of start for the first 30-mile heat was set for 3:15 p.m., Saturday, September 1. However, a few minutes before the time of start quite a breeze was blowing up the Detroit River, making the Detroit side of the river quite rough. Miss Carstairs, the English challenger, asked for a postponement on account of this rough water and the committee with Commodore Wood's approval granted the request, putting the race off for two hours and a half. At 5:45 the river was somewhat calmer and it was decided to start the boats.

(Continued on page 104)

OCTOBER, 1928

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America Keeps British International Trophy

(Continued from page 102)

Estelle II, with Miss Carstairs at the wheel, made a beautiful getaway across the line, a few seconds after the gun and many seconds ahead of the three American boats. The British boat seemed to run very smoothly on an even keel, but from appearances at the start had very little speed. As Gar Wood came down to the starting line several seconds later and passed close to the judge's stand at a speed which looked like about 100 miles an hour, the superiority of the American boat was for the first time demonstrated. The boats had not gone a half mile before Miss America VII was in the lead, in spite of her late start. Miss America V, with George Wood at the wheel, also passed the English boat in a very few seconds.

Soon after the two American boats went into the lead, one mile from the starting line, Estelle II turned turtle and sank. Miss Carstairs was thrown out, but uninjured. However, her mechanic, the plucky Joe Harris, did not fare as well, as he suffered several broken ribs and internal injuries.

With Estelle II out of the race, the event immediately lost its international interest. However, Miss America VII and Miss America V made an interesting race for the spectators and, although no record breaking speed was shown, yet the two boats racing side by side for 30 miles, with first one boat slightly in the lead and then the other, proved an interesting spectacle for the crowd.

Miss America VII's speed for the 30 nautical mile race was 51.594 knots, which is equivalent to 59.33 statute miles per hour. Miss America V finished only two-thirds of a second astern of Miss America VII. Miss America VII's fastest five nautical mile lap was at the rate of 62.768 statute miles per hour.

Miss Los Angeles, driven by Stanley Reed, who replaced Ralph Snoddy, who was in the hospital on account of an operation for appendicitis, finished in third position, just three minutes after Miss America VII. Miss Los Angeles' speed for the 30 miles was 47.497 knots, or 54.62 statute miles per hour.

When the second heat was called on Monday, September 3, the three American boats were at the starting line. This heat was shortened, from 30 to 25 nautical miles. Miss America VII repeated her victory, completing the 25-mile course at a speed of 45.63 knots. Miss America V was 2 1/2 minutes astern of her younger sister and finished at a speed of 42.8 knots.

Miss Los Angeles, in the second heat, suffered the same fate as the British challenger did in the first, and at almost the same location on the river. No one was injured when Miss Los Angeles turned over, and patrol boats soon had her towed ashore. An effort was made to have her ready for the mile trials on the day following, but the attempt had to be given up when it was found her supercharger was out of order.

With the capsizing of Estelle II and thus making the winner of the Harmsworth trophy a foregone conclusion, interest centered in the unlimited class for the championship of North America. The rules for this race, for which a trophy was presented by Sir Thomas Lipton, called for three 30 nautical mile heats around the five nautical mile Harmsworth course. There were no restrictions as to type of boat or amount of power.

Commodore H. B. Greening of Hamilton, Ontario, entered his new 35-foot racing runabout, Rainbow VII. This cut impressed everyone at the regatta and she was voted not only the handsomest and best riding boat at the race, but also was the unanimous opinion that Rainbow VII even surpassed the other Rainbows in Commodore Greening's family in every particular.

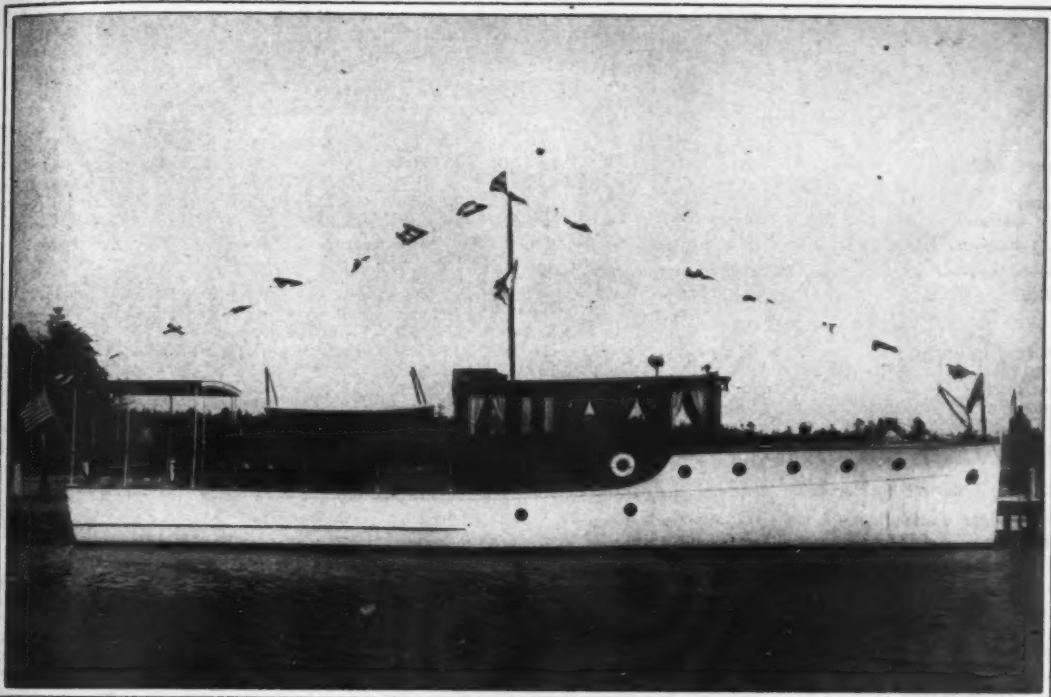
Rainbow VII is a most beautiful boat from every point of view. She has a carrying capacity of more than a dozen passengers and can carry this load at better than 65 miles an hour in comfort. Rainbow VII was designed and built by Ditchburn of Gravenhurst, Ontario, and is powered with two Gar Wood Liberty motors.

Rainbow VII had little difficulty in winning the first two heats of the unlimited class. Her best speed for a 30-mile heat was 47.284 knots, equivalent to 54.377 statute miles per hour. In several of the heats Commodore Greening carried as many as ten passengers in the race.

Rainbow VII and H. A. Johnson's Scorpion, ex-Yankee Doodle, were the only starters in the first heat. There were a few on the dock who thought Scorpion would not make even a single lap. However, these few lost their bets, as Scorpion did complete one 5-mile lap, but that is all. Immediately upon completing this, Scorpion went to the bottom in front of the grandstand.

The second heat had an additional starter in Wilgold III. Commodore C. Roy Keyes of Buffalo, owner of Wilgold III, who was present during the first day's event, noticing the lack of starters for the unlimited class, immediately sent to Buffalo for his racing boat, Wilgold III, which was brought to Detroit during the night by motor truck.

(Continued on page 110)



A Stately Motor Yacht for the Critical Yachtsman



Looking aft in deck house which is arranged as a real dining salon.



The aft cabin is tastefully arranged to sleep six people.



Looking forward in the after cabin.

IN addition to being unchallenged in dollar for dollar value, the Vinyard Fifty-Foot Twin-Screw Cruiser provides the critical yachting devotee with a moderate sized motor yacht having stately elegance and rugged strength coupled with a reasonably fast speed.

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SUMMARY OF RESULTS

INTERNATIONAL REGATTA AT DETROIT

SEPTEMBER 1-3, 1928

Event 2—Class B Amateur—3 heats of 6 miles each.

Pos.	Boat	Driver	Elapsed Time Heats			Speed Heats			Motor
			1st	2nd	3rd	1st	2nd	3rd	
1	Wade Inn	H. W. Hoffman	12:11.52	13:14.37	13:48.58	29.53	27.19	26.07	Caille
2	Orange Blossom	G. Atwood	12:17.07	13:00.10	14:16.03	29.31	27.69	25.23	Caille
3	.....	A. J. Pawling	12:30.88	14:01.45	14:15.24	28.77	25.73	25.26	Lockwood
4	Viscraft	Frank Trud	13:18.33	14:55.49	15:26.73	27.06	24.12	23.21	Lockwood
5	Baby Garland	W. H. Horn	15:09.80	15:44.30	15:23.02	23.74	22.87	23.40	Caille

Also ran: Flapper, Bozo, Hell Driver, Medico, Imp, Border Cities Baby, Miss Century Cyclone, Fool 'Em, Soo Baby.

Event 3—Class B—Free for All—3 heats of 6 miles each.

Pos.	Boat	Driver	Elapsed Time Heats			Speed Heats			Motor
			1st	2nd	3rd	1st	2nd	3rd	
1	Orange Blossom	G. Atwood	11:59.92	12:37.81	15:25.38	30.00	28.50	23.34	Caille
2	Nonpareil	F. Brabiel	12:04.19	12:49.53	13:45.93	29.83	28.07	26.15	Lockwood
3	Baby Lucille	J. Wayman	12:26.81	13:10.18	13:40.05	28.92	27.34	26.34	Lockwood
4	Wade Inn	H. W. Hoffman	15:02.40	13:33.15	15:27.97	23.94	26.56	23.28	Caille
5	.....	A. J. Pawling	12:19.55	13:07.96	DNS	29.21	27.41	DNS	Lockwood

Also ran: Mystery, Diz-V-II, Viscraft, Medico, Awgwan, Flapper, Baby Garland, Imp, Uniplex, No Name, Border City Baby, Bluey.

Events 2 and 3 subject to change pending decision or protest.

Event 4—Class C Amateur—3 heats of 6 miles each.

Pos.	Boat	Driver	Elapsed Time Heats			Speed Heats			Motor
			1st	2nd	3rd	1st	2nd	3rd	
1	Oh Kay	F. Pierce	11:16.85	11:15.22	13:16.02	31.95	31.99	27.13	Evinrude
2	Lady Virginia	W. J. Scripps	10:51.58	11:39.94	14:11.39	33.15	30.86	25.37	Lockwood
3	K. O.	J. Graham	10:56.52	11:25.65	DNS	32.90	31.50	DNS	Evinrude
4	Bullet	Woolord	11:18.86	11:41.95	DNF	31.82	30.77	DNF	Johnson
5	.....	B. Doecker	11:32.20	11:58.41	DNS	31.20	30.07	DNS	Johnson

Also ran: Good Booze, Butcher Boy, Sharrow Special, Nize Fisherman's Paradise, Home Made, Uniplex.

Event 5—Class C—Free for All—3 heats of 6 miles each.

Pos.	Boat	Driver	Elapsed Time Heats			Speed Heats			Motor
			1st	2nd	3rd	1st	2nd	3rd	
1	Good Booze	B. Cohler	12:05.13	12:22.13	15:40.64	29.80	29.10	24.57	Johnson
2	Dachel Carter	E. Helmsted	11:37.38	15:24.50	11:36.32	30.95	23.36	31.02	Evinrude
3	.....	B. Doecker	DNS	12:26.70	12:00.57	DNS	28.93	29.98	Johnson
4	Flying Fish	V. V. Withstandley	12:34.60	12:42.84	DNF	28.60	28.32	DNF	Evinrude
5	C. U. Later	M. R. Brady	13:01.22	DNS	11:42.50	27.65	DNS	30.75	Evinrude

Also ran: Step Sled, My Sue, Flying Fish VI, Century Cyclone, Apache Kid, Bullet, Nize Baby, Sharrow Special, Flintcraft, Fool-Em, Bluey.

Event No. 6—British International Trophy—1st heat 30 nautical miles, 2nd heat 25 nautical miles.

Pos.	Boat	Driver	Owner	Elapsed Time		Speed, Knots	
				1st	2nd	1st	2nd
1	Miss America VII	Gar Wood	Gar Wood	34:53.23	32:52.31	51.594	45.631
2	Miss America V	Geo. Wood	Gar Wood	34:53.67	35:23.49	51.584	42.383
3	Miss Los Angeles	Stanley Reed	J. Talbot, Jr.,	37:53.82	DNF	47.497	DNF
4	Estelle II	Miss M. B. Carstairs		DNF	DNS	DNF	DNF

Event 7—2½ Liter (151 cubic inch) Hydroplanes—3 heats of 6 miles each.

Pos.	Boat	Driver	Elapsed Time Heats			Speed Heats			Motor
			1st	2nd	3rd	1st	2nd	3rd	
1	Miss Westchester II	E. Hammond	12:29.30	8:39.47	9:50.93	28.83	41.58	36.55	.....
2	Baby Ruth	O. Schnering	11:31.32	8:27.13	16:07.70	31.24	42.59	22.32	.....
3	Miss Ricochet	L. Luckenback	13:85.50	10:21.62	9:57.63	24.96	34.75	36.14	.....
4	Mary Jane	C. Stebbleton	DNS	9:36.30	9:58.73	DNS	37.48	36.08	.....
5	Miss Buckeye	G. Bradfield	DNS	9:34.57	DNS	DNS	37.59	DNS	.....
6	Marquette	C. M. Green	DNS	DNS	11:42.41	DNS	DNS	30.75	.....
7	Miss Buffalo	.....	DNS	DNF	DNS	DNS	DNF	DNS	.....

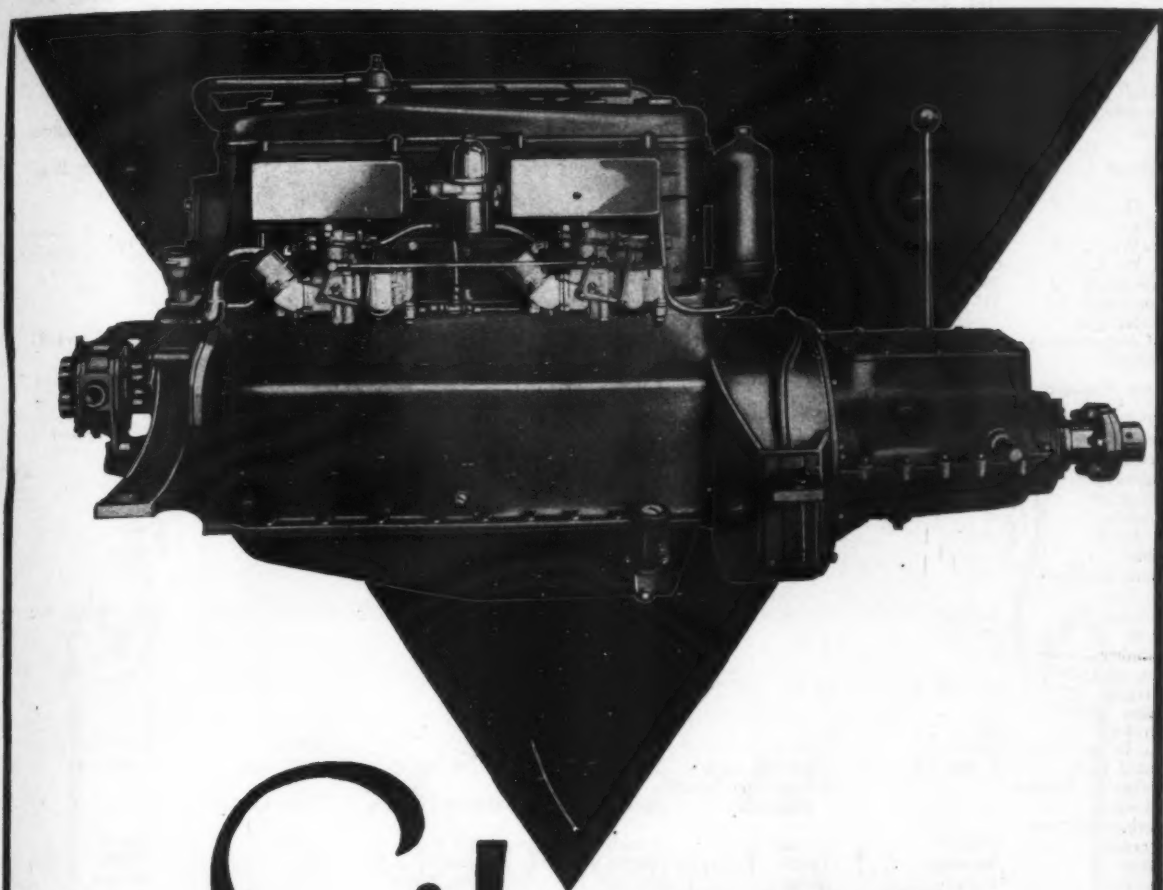
Event No. 8—Unlimited Class—1st heat 15 nautical miles, 2nd and 3rd, 30 nautical miles each.

Pos.	Boat	Owner or Driver	Elapsed Time Heats			Speed Heats, Knots		
			1st	2nd	3rd	1st	2nd	3rd
1	Rainbow VII	H. B. Greening	19:02.03	39:42.52	42:16.07	47.284	45.330	42.585
2	Wilgold III	C. R. Keyes	DNS	40:11.42	42:33.08	DNS	44.786	42.301
3	Skylark	G. H. Phelps	DNS	Flagged	48:32.10	DNS	Flagged	37.086
4	Miss America VII	Gar Wood	DNS	DNS	35:32.14	DNS	DNS	50.653
5	Miss America V	Gar Wood	DNS	DNS	35:32.95	DNS	DNS	50.654
6	Scorpion	H. A. Johnson	DNF	.....	.....	DNF	.....	.....
7	Baby Gar	O. Johnson	DNS	43:02.87	.....	DNS	41.814	.....

Event No. 9—Chance Race for Richardson Cruiser—6 Miles.

Pos.	Boat	Owner	Time	Speed
1	Richardson 28	French & Hart	39:30.43	9.112
2	Sequoia	C. F. Brunk	39:37.31	9.085
3	Miss Ess	L. W. Ward	40:19.18	8.928
4	Hotsy Totsy	G. A. Weigel	40:28.90	8.892

(Continued on page 108 and 110)



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The Buffalo-Knight is a six-cylinder engine with $3\frac{3}{4}$ " bore and $4\frac{3}{4}$ " stroke, developing 80 h. p. at 2400 r. p. m. It improves with use, has longer life, fuel economy, efficient radiation, few parts, silent operation, no vibration, increased power at various speeds, constant power and efficiency. Valve grinding and adjustments are eliminated. No trouble from carbon, no reboring or replacement of cylinder bloc, low cost of upkeep.

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Specifications and Particulars of Harmsworth Trophy Entrants

Owner	<i>Miss America VII</i> Gar Wood	<i>Scorpion</i> H. Alex Johnson	<i>Miss America V</i> Gar Wood, Jr.	<i>Miss Los Angeles</i> James Talbot, Jr.	<i>Estelle II</i> Miss M. B. Carstairs	<i>Rainbow VII</i> Harry B. Greening
Designer	Gar Wood	H. Alex Johnson	Gar Wood	John Hacker	S. E. Saunders	Ditchburn (Herbert)
Class	Unlimited	Unlimited	Unlimited	625 cu. in.	Unlimited	Unlimited
Number	U-14	U-3	U-7	U-10	U-15	U-70
Club	D. Y. C.	D. Y. C.	Detroit Power Boat Ass'n.	Calif. Y. C.	Royal Motor Y. C.	Royal Hamilton Y. C.
Builder	Gar Wood, Inc.	Luders	Gar Wood, Inc.	Hacker Boat Co.	S. E. Saunders	Ditchburn Boat Co.
L. O. A.	28'0"	30'0"	26'	28'1½"	21'0"	35'3"
Beam	7'9"	8'3"	6'7½"	6'2"	6'0"	9'4"
L. W. L.	27'3"	29'3"	25'	26'8"	20'9"	33'10"
B. W. L.	6'11½"	8'3"	6'7½"	6'2"	6'0"	8'8"
Freeboard Fd	24"	27½"	24"	24"	18½"	3'9"
Freeboard Aft	11"	16¾"	10"	14"	12"	2'4"
Watertight Compartments	None	One	None	None	None	One Forward
Bailers	Two	Four	Two	None	None	None
How Arranged	One on each step	2 Forward 2 Aft	1 Each Plane	....	None	....
No. of Gas Tanks	Three	One	Two	One	One	2
Capacity	135 Gal.	90 Gal.	110 Gal.	48 Gal.	40 Imperial	170 Imperial
Propeller						
Submerged	Yes	Surface	Yes	Yes	At rear aft plane	Yes
Diameter	21"	25½"	21"	15½"	22"	20"
Pitch	34"	38"	37"	25½"	....	30"
R. P. M.	2300	2750	2575	4000	....	2500
Make	Columbian	Columbian	Hyde	Special	Saunders	Hyde
Diam. of Shaft	1¾"	2¾"	1¼"	1¼"	1½"	1¾"
Engine						
Builder	Packard	Globe	Gar Wood, Inc.	Harry A. Miller	Napier-Lyons	Gar Wood, Inc.
Type	IM-2500	V12	Liberty	620	3 block	Liberty
Number	2	3	2	One	One	
No. of cyls. per engine	12	12	12	16	12	2
Diam Bore	6¾	5	5	3.406	5½	5
Stroke	6½	5½	7	4.250	5½	7
Cu. in. per eng.	2489.7	1295 each	1650	619.6	1361.52	1650
Rated H.P.	2-1000 h.p. each	3-500 h.p. each	2-550 h.p. each	1-746 h.p.	1-800 h.p.	2-500 h.p.
Make of Reverse Gear	....	Paragon on Wing Engines	Joes	Miller	None-Clutch	Joes
Carbureters per engine	Four	3 Dual	4 each	Two	Three	4 each
Make	Stromberg	Zenith	Zenith	Miller	Napier	Zenith
Ignition	Battery	Battery	Battery	Robt. Bosch	Magneto	Battery
Make	Delco-Remy	Delco-Remy	Delco-Remy	Magnetos	B. T. H.	Delco-Remy
Dual	Yes	Yes	Yes	Two	x	....
Oil	Duplex	....	Duplex	....	....	Duplex
Propeller						
Starter	Electric	Bosch	Electric	Electric	Bristol	Electric
Make	De Jon	Bosch	Wood	Delco-Remy	Bristol	De Jon
Voltage	12	24	12	12	Nonelec.	12
Generator	....	None	Delco-Remy	None	None	Bosch
Battery	Exide	Exide	Exide	....	None	Exide & Willard
Spark Plugs	Champion-Aero	Champion	Champion	Champion	K. L. G.	Champion
1 or 2 per cyl.	2	2	2	One	2	2
Position	Opposite each other inboard to outboard sides	Head	Top	Top of Cyl.	Side of cyl.	Top
No. of valves per cyl.	4	2	2	2	4	2
Intake valves	2	1	1	1	2	1
Exhaust valves	2	1	1	1	2	1
Gear box	Bevel	None	Bevel	....	Bevel	Bevel
Ratio	1 to 1½	....	1 to 1¼	....	1 to 1	1 to 1¾
Manufacturer	Gar Wood, Inc.	....	Gar Wood, Inc.	....	Saunders	Cross
Driver	Gar Wood	F. G. Ericson	Geo. Wood	Stanley Reed	Miss Carstairs	Harry B. Greening
Mechanic	Orlin Johnson	McKenzie and Martin	Capt. Woolson	Eddie Offutt	Joe Harris	Dave Reed and Mr. Marcer

Event No. 10—Chance Race for Liggett Cruisers—6 Miles.

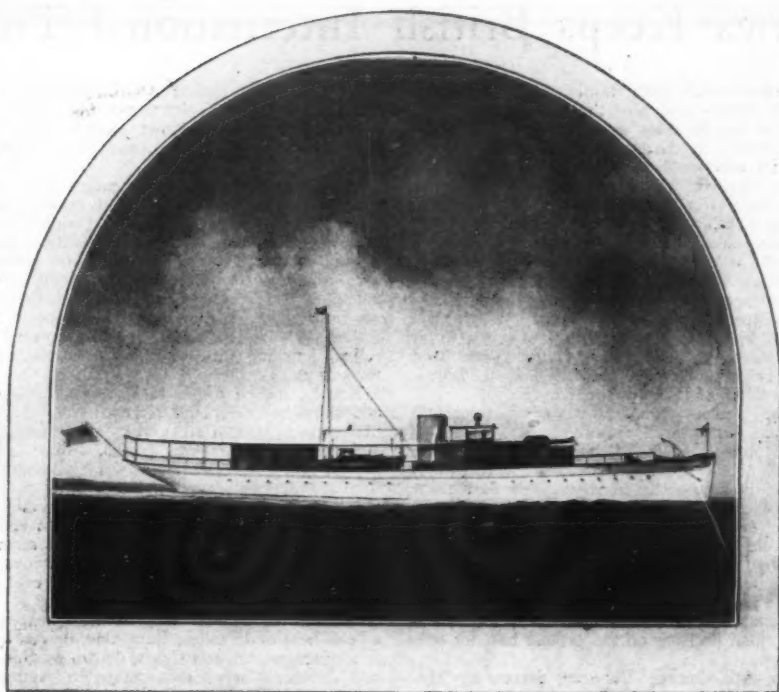
Pos.	Boat	Owner	Time	Speed
1	Flicker	F. G. Hubbard	18:01.69	19.968
2	Storm King	W. A. Rowe	24:16.21	14.833
3	Lady Helen II	Aaron De Roy	24:21.58	14.778
4	Jane Lenora II	L. A. Fast	24:44.67	14.548
5	Ed-Don-Rob	A. F. Saur	25:59.58	13.849

Also ran: Isabel, Mar-Jim II, Namid III, Bookie, Del-Mar-Lu, Iris, Vagabond II, Carolyn E, Sapphire, Molly O, Sumel.

Event No. 13—Chance Race for Matthews Cruisers—6 Miles.

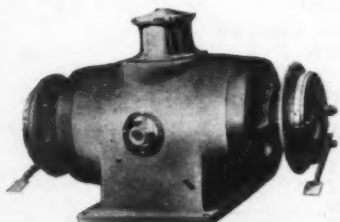
Pos.	Boat	Owner	Time	Speed
1	Awandra II	H. Van Sickle	24:20.30	14.791
2	Jonado II	I W Fraser	30:43.68	11.715
3	No name	Fred Riebel, Jr.	30:56.83	11.632
4	Coquette	J. B. Sheppard	34:20.55	10.482
5	No. 118		34:32.43	10.422

Also ran: Rob E Lo, Bookie, Ulrica, Macadato, Catins; disqualified; Jar Mar and Isabel.



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THE 126-ft. twin-screw Diesel yacht, Waleda II, designed by Thomas D. Bowes and built by Mathis Yacht Building Co. for Walter H. Lippincott, of Philadelphia, takes its place among the world's finest yachts equipped with A-E-CO yacht auxiliaries. Because they are of the most advanced type, embodying the best in materials and workmanship, and stream-line designed to harmonize with modern naval architecture, A-E-CO products are standard with the leading marine architects and yacht builders.

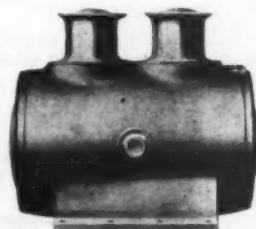


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WINDLASS—Type G**

This electric windlass used on Waleda II has beauty and distinction never before attained in marine deck machinery. The speed of this windlass automatically adjusts itself to the load.

A-E-CO Auxiliaries Include: Steerers, Davit Winches, Remote Reverse Controls and other yacht equipment

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**A-E-CO ELECTRIC
BOAT HOIST**

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America Keeps British International Trophy

(Continued from page 104)

Wilgold III made a pretty race with Rainbow VII in the second heat, being only 29 seconds astern of the latter at the finish line. Wilgold III's speed for 30 miles was 44.786 knots.

Skylark, owned and driven by George Harrison Phelps, Jr., of Detroit, was also an additional starter in the second and third heats. Although Skylark was outclassed, as the other racers had about twice the power, yet Mr. Phelps, driving Skylark, put up a beautiful exhibition of driving under the conditions and held on to the leaders the entire distance.

In the third heat of the unlimited class Gar Wood started his Miss America V and Miss America VII. Quite naturally, with these two boats in the race, the other craft which had raced in the previous heats were outdistanced. Miss America VII finishing the third heat at a speed of 50.653 knots and Miss America V at 50.634 knots. However, as Rainbow had won two firsts and a third, she was awarded the Sir Thomas Lipton trophy for the championship of North America.

The outboards at the Detroit regatta were given important places on the program. Races were scheduled for Classes B and C, both Amateur, and Free-for-All divisions. Each race consisted of three heats of six miles each, and while the water was far too rough for the outboards to show their best form, yet most of them ran and finished in good time.

In Class B, Amateur division, The Century-built boats, powered with the new Caille Class B motors, finished in the first two positions. However, these wins were protested, it being claimed that certain phases of the rules requiring specifications of all new motors to be filed had not been adhered to. The local Detroit committee sustained the protest, but notice of appeal was given. At this writing final decision on the protest has not been announced.

In Class B, Free-for-All, Orange Blossom, driven by Mrs. G. Atwood, also Century built and Caille powered, won first place, but in the Amateur Class B division the result of this race was also protested.

In Class C Amateur, which consisted of three heats of six miles each, Oh Kay, owned by O. K. Hunsaker of Los Angeles, California, driven by Floyd Pierce, won first place, with Lady Virginia, owned and driven by W. J. Scripps, in second place, and Kay Oh, also owned by O. K. Hunsaker and driven by J. Graham, in third place.

In Class C, Free-for-All, Good Booze, owned by B. Cohler, was the winner on points; Dachel Carter, driven by E. Helms, was second; the boat driven by B. Doecker third, and fourth to Flying Fish V, owned and driven by Victor Withstandley of New York City.

In the 2½ liter class for the 151-inch hydroplanes Miss

Westchester II, owned by Commodore E. W. Hammond of Larchmont, New York, was first; Baby Ruth, owned by O. Schnering of Chicago, was second; Miss Richochet, owned by L. Luckenbach, was third, and Mary Jane, owned by E. Stebleton, was fourth.

Cruiser racing formed the major part of Detroit's race program this year. The principal cruiser race was for trophies offered by the Kermath Manufacturing Company for a handicap race of three heats, totaling 75 nautical miles.

The handicaps were based on the actual speed of the boat with penalties for exceeding this rated speed. The owners did not know the length of each heat and, therefore, could not figure the time at which they would be supposed to finish according to their rated speed. The boats that finished ahead of their theoretical finishing time were penalized the amount in minutes and seconds which they finished ahead of the theoretical time.

Robelo, owned by R. E. Linn, succeeded in winning the first and third heats for the Kermath trophy and came in fourth in the second heat, thus giving this boat first place on points. Thistle had to her credit a fifth, a third and a fourth, giving her second position; Gene A, owned by W. E. Adams, was credited with a fourth, a second and a seventh, giving her third place on points. Fourth position in the finals was won by Ja Mar, owned by J. W. Fortune. This boat finished eighth in the first heat; increased her position to fifth in the second heat and came in second in the third heat. Altogether about twenty-seven cruisers participated and the best of feeling prevailed over the handicaps and results of the race.

In the free-for-all displacement boat race, which consisted of one heat of 15 miles, Baby Gar, driven by Orlin Johnson, took first place, with Chris Craft, driven by Bernard Smith, in second, and another Chris Craft, driven by Arthur Bray of London, in third position. Chris Crafts also finished fourth and fifth.

In the Chance race, open only to Matthews cruisers, Awandra II, owned by Harry Van Sickle, finished first; Jonedo II, owned by J. W. Fraser, finished in second position, and No Name, owned by Fred Riebel, Jr., was third.

In the Chance race for Liggett cruisers Flicker, owned by F. G. Hubbard, was first; Storm King, owned by W. H. Rowe, was second, and Lady Helen II, owned by Commodore Aaron De Roy, was third.

The Chance race for Richardson cruisers brought out four starters. Richardson 28, owned by French and Hart, was the first; Sequoia, owned by C. F. Brunk, was second, and Miss Ess, owned by L. W. Ward, finished in third position.

A complete summary of results will be found on page 106 and below.

SUMMARY OF RESULTS, DETROIT REGATTA

(Continued from page 106)

Event No. 11—Free for All Displacement Runabouts—15 Miles.

Pos.	Boat	Driver	Time	Speed
1	Baby Gar	O. Johnson	20:02.54	44.904
2	Chris Craft	B. Smith	21:28.58	41.906
3	Chris Craft	A. Bray	22:12.91	40.512
4	Christ Craft	Chas. Smith	22:17.24	40.381
5	Chris Craft	Harsen Smith	24:24.60	36.870
6	Punk		DNF	DNF

CRUISER HANDICAP FOR KERMATH TROPHY

1st heat 26 nautical miles, 2nd heat 22 nautical miles, 3rd heat, 27 nautical miles.

Pos.	Boat	Owner	Position in Heats			Best Speed
			1st	2nd	3rd	
1	Robelo	R. E. Linn	1	4	1	9.59
2	Thistle		5	3	4	13.492
3	Jean A	W. E. Adams	4	2	7	17.174
4	Jar Mar	Jas. W. Fortune	8	5	2	10.856
5	Whitewood	Dr. A. R. Hackett	2	8	9	15.824
6	Jimiz	James Standish	20	1	5	13.190
7	Marie II	C. H. Thornburg	7	12	8	10.023
8	Sea Hawk	Chas. Wright	3	9	18	8.980
9	Kathleen	L. F. R. Bellows	11	16	6	10.457
10	Isabel	F. G. Hubbard	10	6	19	8.82
11	Lady Jean	Earl Dawson	6	14	17	11.284
12	Awandra II	H. C. Van Sickle	15	11	12	12.719
13	Chanwi	Wm. Ogden	21	15	3	10.670
14	Carolyn E	L. M. C. Conley	9	21	10	9.981
15	Iris	R. O. DeVlieg	18	10	15	13.374
16	Del Mar Lu	Chas. H. Koarber	12	18	14	11.110
17	Mar Jim	B. H. Teezal	22	7	16	13.415
18	Betty Win III	L. W. Worrester	14	22	13	12.395
19	Namid III	Harry Esling	19	10	11	12.479
20	Storm King	W. A. Rose	16	13	DNS	14.119
21	Catins	R. A. Hart	23	17	DNS	9.590
22	Ed Don Rob	A. F. Saur	24	20	..	13.523
23	Bo Peep	I. M. Kirilin	17	10.27
24	Wags II	A. B. Wagner	13	11.37



BUDA Reduction Gear Increases Speed 50%

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"Chicago, Illinois.

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"You will be interested, I know, in learning of the remarkable results of the Buda engine, with Buda reduction gear unit, installed in my boat last spring.

"This boat, which is 48 ft. long, 11½ ft. beam and 3½ ft. draft, of heavy construction, was formerly powered with a 4-cylinder heavy duty engine, 6 x 9" bore and stroke of 1,018 cu. in. piston displacement. The best boat speed obtainable with this engine at a maximum R.P.M. of 450, turning a 30 x 28" propeller, was 9 miles per hour, and at this speed the vibration was very pronounced.

"The Buda engine of 573 cu. in. displacement, with the 2 to 1 reduction gear unit, turns the same 30 x 28" propeller at 750 R.P.M., giving a boat speed of 13½ miles per hour, with practically no vibration.

"It is interesting to note that this Buda unit which is approximately half the size of the former engine increases the boat speed 50%.

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(Signed) PAUL D. HARVEY."

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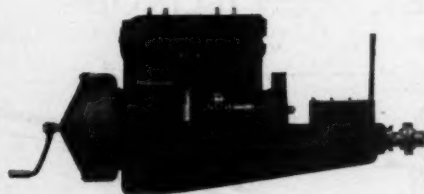


The Martha, owned by Mr. Russell W. Field of Barrington, R. I., is driven along at a comfortable cruising speed by a MIANUS Model 416-A.

Mr. Field comments on the efficiency of this small engine which, due to its reduction gear, turns a large propeller at maximum efficiency, developing a surprising amount of power.

The built-in reduction gear drive is an exclusive MIANUS feature. These silent herring-bone gears without vibration turn a larger propeller at one-half engine speed. To do the same job without the reduction gear would call for a much larger engine, and naturally would consume far more fuel.

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Mianus Diesel Engine Co.

30 McGee Avenue
Stamford, Connecticut

Down Hurricane Alley

(Continued from page 37)

as he sat eating a large portion of roast beef after having been eighteen hours without food, delivering a boat 230 miles away. "Nine hundred gallons at three gallons per hour is three hundred hours at perhaps eight knots, is twenty-four hundred nautical miles, that's not enough." "But there is no need to take it all in one whack. To the Azores and then to Spain or Portugal should divide it into satisfactory portion."

"But, Charlie, I don't mean to ask you to go. It's a dangerous venture, although a purely sporting one. Think it over. If you feel you want to go I will be tickled to have you. "All right," says he, "I will wait, as you will, until she's in the water."

And then came the really hard work, the planning and directing of every minute detail, the placing of the engine in the boat. Charlie's supervision of the faultless running of every gas line to the engine, every vent line to the cabin top, the placing and installing of the best of every known engine accessory. My own direction through the heads of the firm of the building of the superstructure and interior lay-out of galley, chart table, pilot house and the necessities of human comfort and nautical precision. All these were engrossing days filled with the realizations, my own and those of the builders and the men doing the actual work, that the slightest detail spelled success or defeat.

Came the day of days. Our boat was to take the water. At last she was to feel the swell of a wave beneath her, no longer was she to rest in her cradle. She was to rest in the surging mystery which only a boat can feel and understand. She was to be launched. And what to name her? What could be more fitting than that she should bear the name of the man who had built her. On August eighth, two hours after noon, she was, to the music of a bursting bottle christened Banfield at the hands of Mr. Banfield's sister, and flung upon the reaching tide.

Then came five days of that most absorbing of all preparation; the actual fitting out, the loading of all necessities of life for we were to be immune from ship chandlers, doctors and delicatessens. A jury mast was stepped in the forepeak, cupboards were built for provisions and medicines, charts were stowed under the bunk and a jury tiller was lashed to her shining after deck, the tests were completed showing that it took nineteen minutes and twenty seconds to consume one gallon of gas which of course indicated that we were within our estimate of three gallons per hour toll to the heart of the ship, the engine.

Nor were Charlie and I alone on these trips. Brother John was there with enthusiasm and ardor, seeing adventure in the offing. Nothing else would do but that he too must perforce and no reneging cruise with us to the Land of the Dark Eyed Senoritas. There was no saying Nay, he must away.

Two bells! (and other nautical expressions). "A cook you need," says he. So, said I to Charlie, it's easy to get a cook but the seas often prevent employment. "Yes, I know, said Charlie, when there is no cooking to do a third spoke on the wheel is often handy." So then we were no longer two, we were three. Of course before this we had had countless offers of able seamen who said they would be able at least to wind the victrola.

On the fifth day after the launching, Banfield cruised to her first port which was soon afterward to be her port of departure, New York. The next two days as she lay at the moorings of the hospitable Columbia Yacht Club she was visited and honored by the presence of many. Nor was this all that came aboard; in her hold such as remained of it, was stored in countless numbers many appetizingly labeled canned foods. In her cabin were placed necessary last minute acquisitions, such as spare compass, rockets, weather pilot charts which were glanced at by the Skipper and promptly hidden beneath his bunk.

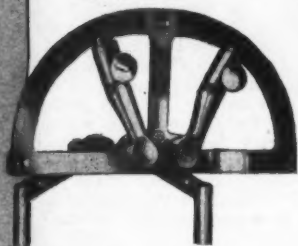
The two nights in Port, Johnny felt that he must spend aboard in caring for the good ship and drinking of her water supply, stored as it conveniently was in forty, three gallon breakers.

Thursday, the sixteenth of August, emblazoned as it was by fifty-seven cameramen, of all known varieties, their reporting confederates, confreres and allies. The day was clear, the Hudson River calm, the crew was assembled, the photographers excited, relatives were strained, the photographers were still excited, relatives were restrained, the crew was less calm and increasingly were bewildered when Skipper said, "Well, let's go," and so we left them, a blur of waving hands, of flashing camera lenses. But still we were not yet alone, Captain Abbott, well known compass adjuster, had designs on our compass in the region of Staten Island, and Eddie Olsen, who had accompanied us to New York for a final embellishment of the brass, were still on board. It was twelve twenty-one when we

(Continued on page 114)

SERVICE, SKIPPER!

Fig. 8755—W-C Spark & Throttle Control: Levers out of sight behind bulkhead. Polished brass, substantial and dependable.



OLD salts—down east lobstermen, Chesapeake oystermen, Carolina fishermen, work boat owners and yachtsmen right around our coastline and upon our lakes and rivers—have Wilcox-Crittenden hardware and equipment on their boats because it gives them *dependable service*. Experience has taught them that W-C merchandise, built up to a quality standard, not down to a price, is the cheapest in the long run.

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Fig. 5691—Salt Water Resisting Aluminum-Alloy Steerer finished in green enamel. 14".

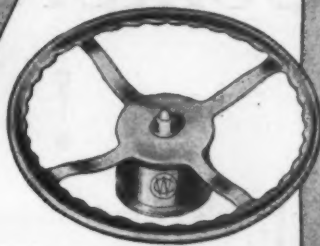


Fig. 4122—Skene Bulwark Chocks: Designed to prevent chafing and wear. Rope cannot jump the chock, but is easily removable. For 1 1/4" and 1 1/2" rope.

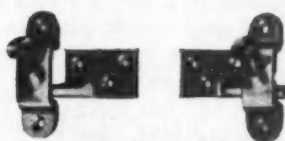


Fig. 484—Cabin Sash Hinge and Anti-Rattler: Polished Brass. Attractive design. Easily adjusted. Full opening, yet stops rattle and makes window storm-tight.



Fig. 5690—New Side Steerer with rim of black indestructible composition, 10" and 14".



Fig. 8572—High Speed Intake Scoop Strainer: Manganese Bronze. Admits full supply of water at all speeds but strainer prevents clogging.

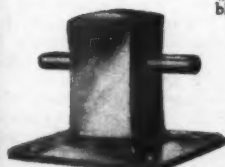


Fig. 4190—Brass Mooring Bitt: Strong enough to withstand exceptional strains. Beveled edges protect cable. A credit to any forward deck.



Fig. 898—Streamline Aluminum Alloy Outboard Fin: Stiff but light and vibrationless.

Fig. 897—Corbin Tachometer shows when to trim your boat... adjust your carburetor or spark... to get best speed.

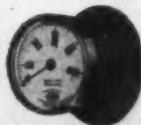


Fig. 855—W-C Liquid Compass: Clear, readable dials. Dial sizes 2" to 3" diameter. Mahogany binoculars with electric light may be had for any above sizes.



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MOTOMETER SPARK PLUG

Down Hurricane Alley

(Continued from page 112)

departed from the Columbia Yacht Club and their hospitality. However, we were not as yet completely departed from our friends and relatives. In a calvalcade of automobiles and taxis they had successfully outraced us to the Battery.

We have since learned that the binocular seller was renting glasses and ballyhooing. "Rent them and see the German ship sailing." Mother remarked, why not suggest seeing the little white boat sailing to Spain. The Ballyhooper, with an eye to business, yelled "See the little white boat going to Spain, the little 32 foot boat sailing to Spain by way of Bermuda and the Azores," and so his glasses were sold and the cry taken up by the other Ballyhoopers along the water front. Through our own glasses, unassisted by ballyhoo, we still saw the waving hands and handkerchiefs of those we had left behind until we reached the lee of Staten Island, then came nearly two hours of swinging ship until the compass had reached its nearest approach to a minimum of deviation. This was prefaced by a comparison by telephone of the Chronometer with Arlington time through Captain Abbott's headquarters. We then left Pier 14, Staten Island, after Captain Abbott's farewell wishes to proceed and pass by Atlantic Highlands, New Jersey, with the thought in mind that it would be a fitting showing of gratitude to the men who had built our tiny ship, to wave them an appreciative farewell.

When we approached Atlantic Highlands, it was almost four o'clock standard time, which meant that it was almost five o'clock in the routine of those who live by daylight saving time. So it was hardly to be expected that there would be anyone in sight to wave goodbye to. To our astonishment the pier jutting out from the village was loaded with well wishers. Not only was the boat builder's plant in full force, together with many of the townspeople out, they had slung aloft a banner bearing the words "Good Luck," and so in the fear of being detained through conversation, we put ashore on the deserted side of the pier our faithful Eddie Olsen. We then backed off into the bay and putting the engine into neutral, the three of us alone at last went on deck. Above the cries and the shouts of encouragement of those on the pier could be heard the bass voice of Walt Bennett, the foreman of the boat building company and an understanding seaman. Or was this all? There were strains of an impromptu band. A staccato shot of a pistol and the waving of the Skipper's wife's hand with her five months' old baby nestled in the other arm, all of which made a confusion and conviction in the hearts of the three men that they were not alone in their venture on the high and unknown waste of the sea.

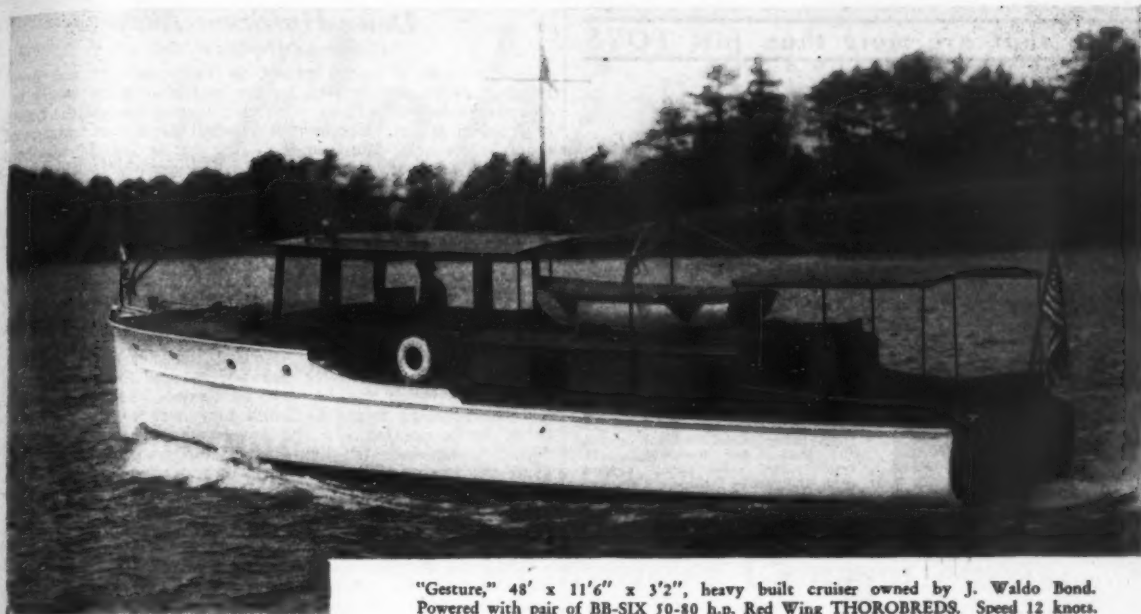
At four fifteen, standard time, we with the longing to be gone and an impatience to be off, took our departure. We did not know even then Joe Banfield was pursuing us by steamer and fast motor boat with the first clippings of the papers telling of the start of the voyage. Suffice it to say they did not catch us with the news we already knew. We rounded the Hook and passed within a throw of log line of countless party boats, fishing in the propitious stage of the tide. At five hours, fifty-seven minutes, twenty-three seconds we left Scotland Light Vessel by the beam with Johnny at the wheel.

Soon thereafter he was steering with his feet, comfortably settled on the driving seat and the cardboard top remaining from a box of sandwiches given to us at the last moment resting on his knees. On this improvised table he had in order before him a deck of cards in solitaire formation. As he glanced at his cards with the hope to be rid of a card he could also observe the compass card bearing 152° which was a result of a 138° true, plus 3° deviation plus 11° local variation. He did not know that at this time while he was enjoying his placid game in the long roll of the off-shore swell that to those on the beach and the Hills of the Highlands, the little ship was seemingly in rough waters. At times as she slid to the trough of the swell, only her mast was visible.

Johnny continued his game until he beat Old Sol. It was then twilight, so you see he was not immediately successful. At this time the Skipper having been busy with his charts and the engineer busy with his engine reports suggested, "Well, cook, how about a little grub?" "Nautically speaking, Aye, Aye, Sir. What will you have aboard, Sir?" "You have the menus, let's abide by them." So the cook sets up the eats.

As we ate, the hills of New Jersey were still mingled with the clouds above the horizon. After the dishes were neatly cleared away, while Charley was at the wheel and the Skipper was out oiling the log, land gradually receded into the dusk of the night. Even then the light of the Highland Twin Lights still persisted and swung in its regularity over the starboard quarter. Then stars were visible and night was upon us.

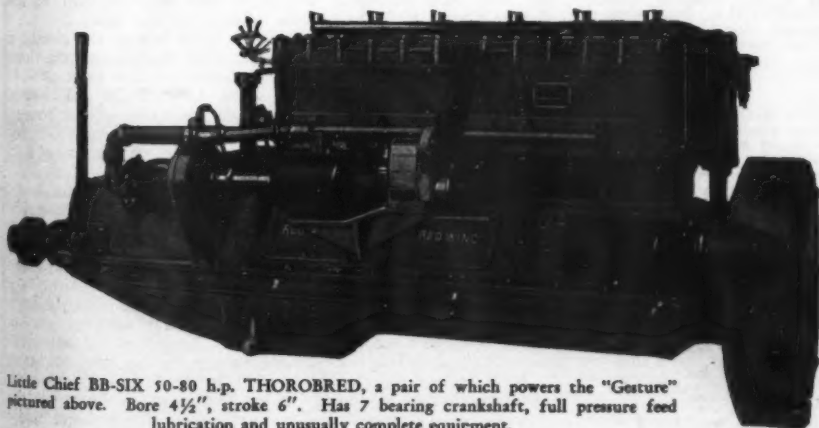
(Continued on page 116)



"Gesture," 48' x 11'6" x 3'2", heavy built cruiser owned by J. Waldo Bond. Powered with pair of BB-SIX 50-80 h.p. Red Wing THOROBREDS. Speed 12 knots.

ANOTHER STANDARDIZED CRUISER with RED WING "THOROBRED" POWER

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Little Chief BB-SIX 50-80 h.p. THOROBRED, a pair of which powers the "Gesture" pictured above. Bore 4 1/2", stroke 6". Has 7 bearing crankshaft, full pressure feed lubrication and unusually complete equipment.

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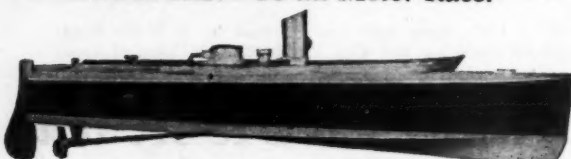
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Down Hurricane Alley

(Continued from page 114)

Charlie took it upon himself to light the red and green running lights and hoisted to the masthead what would ordinarily be the stern light. Our ship seemed to feel the breath of freedom at last. She seemed to smell the salt of untrampled space before her. She seemed to feel that at last she was born unto the life that was hers. No need to remark the observance of the feeling in another; what is hers we humans cannot put down by the written word. Hers is the tribulation, hers is the surmounting of such obstacles as we will never know when we comment upon her efficiency. The criterion to which she strove is hers alone.

With Charlie still at the wheel the stars were as vivid as jewels set in an inverted bowl. How could one observe them and still not experience the feeling of security in the vertice of the observer.

At eleven o'clock, Ships Standard time, or 75th Meridian, Skipper took the Pelorus on deck and checked the course by the star Polaris which was found to be correct. The swells which had been coming from the South now bore to the west, that being south, southwest. The barometer was steady, reading 30.1. At midnight the lights of a ship were sighted slightly abaft the starboard beam. These lights, according to Charlie, with his knowledge of the vicinity were proclaimed to be those of a cutter, on outer rum patrol. This was confirmed in the mind of the skipper through the observance of the use of a blinker to which of course we were not capable of replying.

After the disappearance of the lights of this vessel by our stern, we felt the routine of our voyage had begun. Johnny again took the wheel while the Skipper retired to his bunk and Charlie hovered maternally over his oil gauge and reports. In the early morning the first mate was relieved at the wheel by Charlie, Johnny ensconcing himself directly aft of the wheel house on the bare deck.

At daybreak the Skipper awakened to find the sun a hard high above the horizon and very much irritated to feel that all watches, the first night out, had been stood without him. The sun was a bright red ball in spite of his height. The sky was slightly overcast with lead colored clouds. Johnny lay on his back on the after deck, half asleep. We did not disturb him. In spite of the early hour and the sun not being very high it seemed advisable, because of the threatening condition of the sky, to take a sight while we were able, so the Skipper went below and procured sextant and stop-watch. The first sight of a Summer's Line was taken at 5:10 and the second almost two hours later. Inasmuch as there seemed no hurry in working these sights out, it was agreed that it was breakfast time. When we suggested this to Johnny in his dual role of mate and cook, he did not seem to be particularly interested in whether we really had breakfast or not, saying he would much rather sleep. Was he sick? No, he wasn't sick, but he was tired. Nevertheless he finally rose and descended to his duties; breakfast was soon over and a few crumbs were thrown to the Mother Cary's Chickens which followed in our wake.

At 9:49 the sun having come out from behind the clouds, a third sight was taken. The Skipper then worked out the three sights and announced that at the time of the last sight at 9:49 we were in Longitude 72° 25' West, Latitude 38° 53' North, which meant that we were 6 miles to the south of our course. That we had in the sixteen hours we were out put 120 miles under the keel at the rate of 7½ knots; the sea was calm with only an undulated swell.

The barometer had fallen slightly to 30.08. All in all, it did not look very good. At noon our position was Longitude 77° 14' West, Latitude 38° 43' 30" North. The ships clock was accordingly set ahead 11 minutes and the course corrected 130° true. At three o'clock, after having had lunch, Charlie began to experiment with the drinking water. It did not taste very good to us so he had an idea that it could be made more palatable by adding orange and lemon juice; that was an improvement. The first part of the afternoon the sky became completely overcast. Although it was by no means a dark day, the sea began to build up and the barometer fell to 30.00 and so the afternoon was passed in short watches and naps. Johnny got his victrola out and entertained us with "Get out and get under the Moon," "That's my weakness now."

Charlie felt very ambitious and decided that he was going to get dinner, which he did to the tune of some very salty ban, half cooked, fried potatoes and well advertised onions. He also opened a five pound tin of butter and a can of cherries. Instead of getting used to the drinking water it seemed to become increasingly abhorrent to all of us. Johnny said it was making him sick. Charlie said it wasn't doing him any good either. As we were finishing supper, Charlie cries from the after deck, "Avast, ye lubbers, a ship on the starboard bow." Sure enough

(Continued on page 118)

Robinson Seagull

Runabout Speed

Cruiser Comfort

Commuter Conveniences

IN beauty of design and finish, fleetness of foot and simplicity of control, the Robinson Seagull ranks with the world's finest runabouts. In seaworthiness and completeness of accommodations it matches the comforts and elegance of a custom-designed, custom-built express cruiser. Lighter, faster and easier to handle than the average cruiser, still it lacks nothing in cruising accommodations—Pullman berths, complete galley, lavatory, upholstered seats and chairs—every convenience for overnight sojourns.

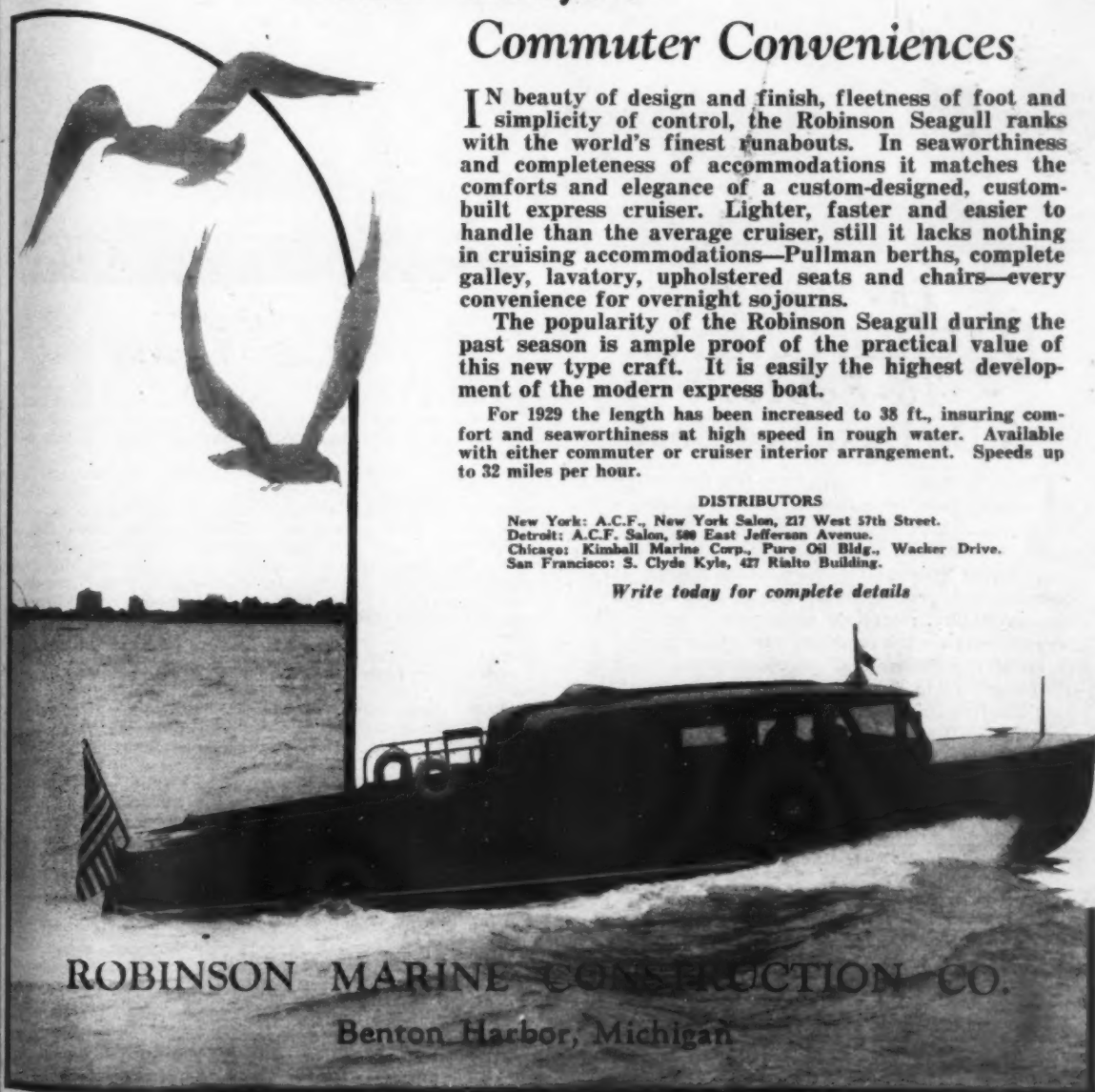
The popularity of the Robinson Seagull during the past season is ample proof of the practical value of this new type craft. It is easily the highest development of the modern express boat.

For 1929 the length has been increased to 35 ft., insuring comfort and seaworthiness at high speed in rough water. Available with either commuter or cruiser interior arrangement. Speeds up to 32 miles per hour.

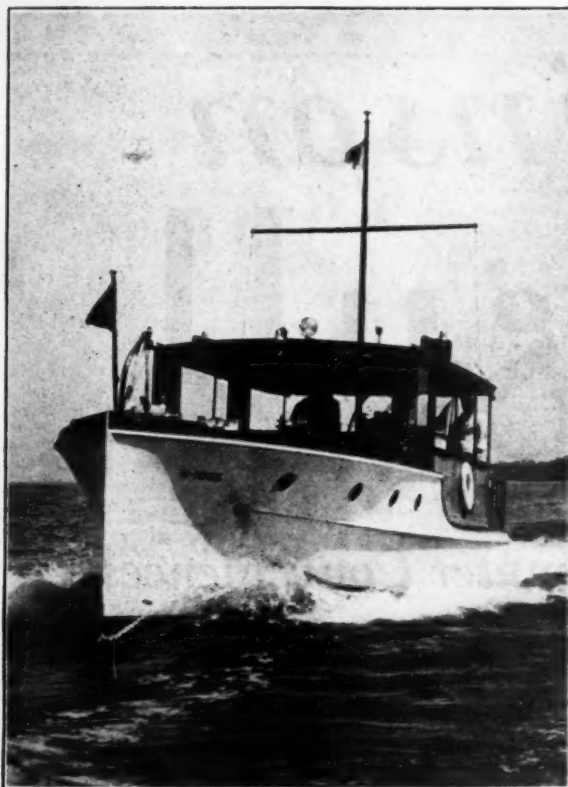
DISTRIBUTORS

New York: A.C.F., New York Salon, 217 West 57th Street.
Detroit: A.C.F. Salon, 500 East Jefferson Avenue.
Chicago: Kimball Marine Corp., Pure Oil Bldg., Wacker Drive.
San Francisco: S. Clyde Kyle, 427 Rialto Building.

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ROBINSON MARINE CONSTRUCTION CO.
Benton Harbor, Michigan



The 1929 DACHEL-CARTER 45-Footer A De Luxe Sea Boat

THE 1929 Dachel-Carter forty-five foot sea going cruiser is a revelation of custom beauty in a standardized boat of a reasonably low price. The rakish lines of this handsome cruiser and its richly fitted living quarters are characteristic of the finest custom boat practice. Its easy one-man-control, maneuverability, marvelous performance and absolute seaworthiness are the results of careful designing plus painstaking workmanship. Accommodations include the owner's cabin aft with two large spring berths, a spacious forward cabin sleeping four, a large fully appointed galley, and a spacious semi-enclosed bridge deck.

A few Dachel-Carter 45-foot cruisers
are ready for fall delivery.
Write today for full particulars

CUSTOM WORK

We have complete and modern facilities for building larger cruisers to meet your individual requirements from our designs or from your naval architect's plans.

DACHEL-CARTER BOAT CO., Inc. BENTON HARBOR, MICHIGAN

We invite you to visit our plant and inspect DACHEL-CARTER standardized cruisers and custom-built yachts in various stages of construction.

BUILDERS OF QUALITY BOATS FOR THIRTY YEARS

Down Hurricane Alley

(Continued from page 116)

there she was, apparently a freighter out of Baltimore. It was then 6:05 in the evening and she bore 170 true. She must have been some six miles away but as she was making easting she was perhaps two miles closer when she went by our bow. It does not seem as though we were close enough for her to make us out.

Feeling that that was that, Johnny decided that he would turn in or out as he seemed to feel that the place he liked best was on the after deck, just aft of the wheel house, sheltered by the open windows. As darkness approached the sea continued to build up, still coming from the South. Charlie stood the first watch and Johnny arose and kept him company. This gave me, the Skipper, the opportunity of occupying Johnny's place in the lee of the deck house. At 11:25 the Skipper was awakened by Charlie reaching through the open window and shaking him and saying, "The compass has gone crazy; there a rocket on the port beam; it's gone now. The Skipper tumbled into the Pilot House and took the wheel. Sure enough and in a counter clockwise direction, the card slowly spun, the ship was swung in pursuit but could not catch it. It was a dark, black night, the heavy swell on the sea, the sky was completely overcast, there was a psychic atmosphere that engulfed it, it seemed almost as though during those few tense moments we hung suspended in a vacuum.

(To be continued)



The Luders 25-mile commuter

A New 72 Footer

HERE indeed is something new—a 72 foot Commuting boat with a speed of 25 miles an hour and accommodation for two to six people, seaworthiness, luxurious comfort and smart appearance that alone would put the boat in a class by itself.

The Luders Marine Construction Company of Stamford, Connecticut, designers of this new type have carried their stream line effects of design with the most pleasing results on these new boats. If they have not with this sounded a new note in design they can at least not be accused of plagiarism.

The first glance at the picture of this smart little ship gives the impression of an 85 footer due to the careful manner in which the height of the hull and cabin work have been balanced and in a manner that the real height of the forward houses have been concealed by the unusual contour. The release of this particular design is most pleasing to the builders—two boats of this type are now under construction and a third at least is contemplated.

One of these boats will be for Edward Plant, Esq., President of Lehn & Fink of New York City, and the other will be for Walter E. Sachs, Esq., of Goldman & Sachs of New York City. The boats will be substantially identical of a modified V bottom of the best possible construction throughout equipped with a pair of 8 cylinder Sterling Dolphin motors. In their interior arrangement the boats are substantially a duplicate of the very successful 65 footer Toxaway recently designed and built by the Luders Marine Construction Co., for James H. Nunnally of Atlanta, Georgia. The additional length of the 72 feet, however, permitting a most practical and comfortable enclosed house amidships and generally easing up the accommodation on the boat.

The owner's room aft is extremely generous in size, two comfortable beds are installed, ample storage space, a separate shower room and toilet room.

The dining room, which has a toilet adjacent, is arranged with broad transom seats which can be used as beds. In addition to this the backs swing up forming emergency sleeping space for two more. The galley is located forward between the crew's quarters and the dining room, so that this service will represent the least possible effort for the cook and steward.

Hackercraft

HACKER DOLPHINS have everything! Extreme speed—flashing style—genuine riding comfort—remarkable seaworthiness—beautiful lines—exquisite finish—excellent materials—sturdy construction—silent, dependable power plants—big, roomy cockpits—deeply upholstered spring cushions—perfect control—instant response to wheel and throttle. In performance, in appearance, in quality and length of service, no finer boats have ever been built.

Before you buy any boat, treat yourself to a ride in the Hacker Dolphin. Try other boats, too, and compare them in each detail with similar Dolphin qualities. Only in this way can one appreciate the superlative performance of these Hacker boats.

Dolphin Runabouts and Sedans—\$2975 to \$5850

29 ft. Hacker Dolphin.....	\$4950	26 ft. Dolphin Jr.....	\$4275
29 ft. Dolphin Sedan.....	\$5850	24 ft. Baby Dolphin.....	\$2975

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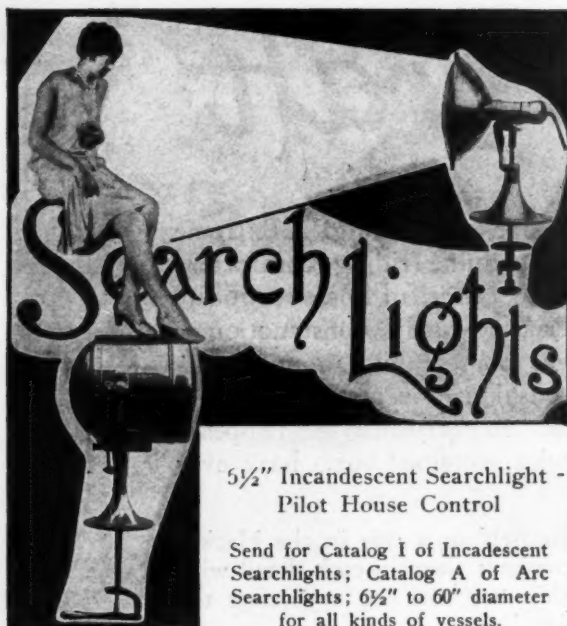
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Ten Passengers
40-42 Miles per Hour
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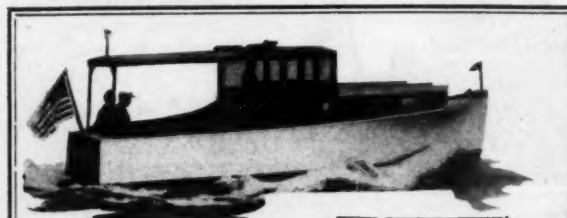
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Manufacturers of

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At \$3550 the Rochester V-Bottom 30-Footer

has conclusively demonstrated that it is the one outstanding value of the 1928 season.

Plans for the 1929 fleet of 30, 33, 36, 40, 45, 50, 55, 65 and 75 foot cruisers are ready! Your inquiries are invited.

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Originators of the Standard Enclosed Bridge Cruisers

Are You Interested in the New 1929 Cruisers?

A New Diesel Fuel System

THE fuel system described was developed by the Hill Diesel Engine Co. to meet the four most important demands of small diesel users, marine architects, and engineers, which are:

- (1) Unfailing cold starting.
- (2) Satisfactory operation on any of the standard engine fuel oils used in large engines.
- (3) Efficient operation at approximately the same speeds as gasoline engines of the same general type.
- (4) Of such simplicity that the average operator can maintain it in good working order.

Specification number 1 does not seem difficult when we think of large engines employing high pressure atomization. But when we lay out the compression space of a cylinder as small as six inches bore and reasonable stroke we have a thin water-like volume which gives up its heat quickly to the walls and cannot be effectively covered by the fuel spray even with two nozzles without depositing a large percentage on the walls causing smoky exhaust and high heat losses.

This condition demands a change of form of combustion space in the small engine to give more depth and less diameter, and concentrate the air in a position to be easily reached by the spray.

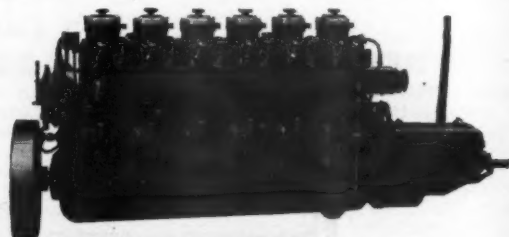
Specification number 2 means that fuels as low as 26 deg. Baume including California, mid-continent and Mexican fuel oils must be handled without difficulty or necessity for frequent cleaning.

With provision for heating to make it flow freely, fuels as low as 20 deg. A. P. I. are burned with a clear exhaust in a compression space left by a dished piston in combination with a pre-combustion chamber of approximately equal volume as used in this system.

Specification number 3 presents no difficulties in a general purpose engine such as will be suitable for yacht propulsion, auxiliaries, mobile equipment, etc., up to 1,000 to 1,200 rpm.

With this system the preparation of the fuel must begin early enough to have it in the proper condition for injection into the pre-combustion chamber where it is ignited by the heat of compression, gasified and blown into the compression space in the cylinder by the pressure resulting from its partial combustion.

Specification number 4 is of great importance especially with small engines as any system, however efficient when in good working condition, is bound to be a failure in general use unless it can be kept in order with reasonable attendance by an ordinary mechanic.



The six cylinder Hill Diesel marine engine

As stated under Specification number 1 the object of the dished piston is to reduce the radiation of the heat of compression and provide a deep section to receive the gas from the pre-combustion chamber without coming in contact with the cooled surfaces.

The Pre-combustion Chamber in this system has a volume of about half the total compression space and the communicating opening is about half an inch in diameter.

The Chamber is placed at an angle which directs the gas into the dish in the piston to reach the remaining air. This arrangement leaves the entire area of the cylinder head clear for the inlet and exhaust valves and adds no complication whatever to the cylinder head casting.

This combination disposes of the moot question of turbulence by projecting a large stream of rich burning gas into the combustion space reaching the entire volume of air without resistance and with slight contact with surfaces. The markings of dry soot on the cylinder head and piston dish after a long run under full load indicate this condition perfectly.

The spray nozzle which gives the best results with this system is of the closed type although the open type nozzle gives good results, also.

The valve in the nozzle is spring loaded to open automatically at about 1,500 lbs. and seats close to the fairly large single

(Continued on page 122)



Old Man Joe in New York

When you cast anchor in the old East River or any other water 'bout New York, pay Sutter Bros. a visit, sales room, 47 Great Jones Street—down by the Williamsburg Bridge, service station, Knapp St., Gerritsen Beach, Brooklyn, N. Y. From east side, west side and all around, come Joes users for what little service they need. And they get it with that courtesy and promptness for which Joes big family is noted.

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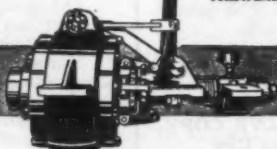
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W. D. EDENBURN, Editor

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PRESTO PRIMER and REDUCING VALVE CORP.
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A New Diesel Fuel System

(Continued from page 120)

orifice. The spray would be considered coarse by advocates of pressure atomizer systems, and the angle of the cone is such as to strike near the bottom of the precombustion chamber.

A finely divided spray is unnecessary with this system as only a partial combustion of the fuel in the chamber B is required; the final and complete breaking up of the fuel being accomplished when the pressure in the chamber blows the gas out into the cylinder combustion space.

The spring loaded valve in the nozzle opens only when injection pressure has reached the proper point and closes instantly, due to the partial relief of the pressure by a valve in the pump which will be described later. This nozzle and pump combination permits of the storage of a number of charges of fuel near the nozzle orifice where it is heated but under enough pressure to prevent its gasifying or cracking and fouling the orifice.

With direct to cylinder pressure atomizer systems starting is facilitated by a very fine spray at a high pressure, but with our combination a very fine wide angle cone does not produce more ready cold starting.

The engine being cold the viscosity of the fuel at the nozzle is high and the temperature in the chamber is too low to produce ignition but part of the spray carries through to the cylinder where the air is much hotter and ignition occurs with the first injection.

After a few moments operation the chamber and nozzle become warm, the viscosity and penetrating power of the fuel spray is reduced so it no longer carries through to the cylinder, but is ignited in the chamber and regular operation commences.

At the time of injection there is still an appreciable flow of air from the cylinder to the chamber and the stream being of large area and high temperature causes the spray to mushroom as they meet near the bottom of the chamber. This action is indicated by the soot markings being at a higher point in the chamber than the angle of the spray would bring it without interference by the incoming air stream.

This theory is strengthened by the fact that at the point where the outgoing stream of gas touches the bottom of the dish in the piston the markings are a thin brown soot whereas if raw fuel continued to carry through as with the first few starting charges there would be a deposit of carbon at that point.

The body of the pump is cast enblock with the cylinders of hardened steel inserted.

There is one of these units for each power cylinder.

The fuel chest at the side contains the measuring valves, one for each pump with means of adjustment to balance.

The measuring valves are controlled by the governor or by a hand lever.

The fuel is piped to the fuel chest from a gravity day tank at a slight pressure.

On the suction stroke the plunger descends and whatever fuel passes the regulating valves enters the cylinder through the upper port at the side.

As the plunger ascends this port is covered, and when the pressure overbalances the valve in the nozzle the fuel passes out through discharge valve.

When about two-thirds of the stroke of the pump has been completed, the groove on the plunger uncovers the relief port in the cylinder and the pressure in the pump and tubing is suddenly relieved, the surplus fuel passing through the central hole in the plunger and drilled channels back to the fuel chest.

This sudden relief of the pressure insures the positive closing of the nozzle valve and terminates the injection charge without drive or surge. A large diameter plunger is used to reduce the length of the injection period.

Injection timing. A manually operated advance and retard is built into the pump by means of which the best point of injection may be quickly obtained to suit wide changes of speed and light or heavy grades of fuel.

With this pump the injection period terminates at a constant point while the beginning varies with the load.

This condition would not be ideal for direct to cylinder injection, but with this system it gives as good results as were obtained with the terminal point varying with the load.

Marine and stationary engines of two cylinder sizes using this system are now in regular production. The smaller size is 5 inch bore and 7 inch stroke in two, three, four and six cylinder units and the larger is 6 inch bore and 10 inch stroke in four and six cylinder units. Both sizes are rated at 800 r. p. m. with 1000 r. p. m. permissible for short periods.

OCTOBER, 1928

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A.C.F.
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A. C. F. "68" Twin-Screw Motor
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Cruiser. Powered with one 100
H.P., 6 cyl., Hall-Scott.

A. C. F. "45" de Luxe Express
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200 H.P., 6 cyl., Hall-Scotts.

A. C. F. "41" Bridge Deck Cruiser.
Powered with one 100 H.P., 6
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A. C. F. "35" Raised Deck (or
Trunk Cabin) Cruiser. Powered
with one 70 H.P., 4 cyl., Hall-Scott.

NOTE: All Hall-Scott engines mentioned
above are of the powerful reduction-gear
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is direct connected.

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from coast to coast

IN A. C. F. cruisers, nothing but the
finest materials are countenanced,
none but the most exemplary design
and construction, only a power-plant
as good as the Hall-Scott (which is an-
other way of saying that none but a
Hall-Scott will do).

On the other hand, Hall-Scott Reduc-
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better (due to their finer machining
and more powerful principle) that they,
naturally, cost more and are decidedly
worth it. For this sound reason, Hall-
Scott Engines are used *only* in craft of
the finest specifications (which is an-
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Complete information will be mailed
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For Tenders, Sea Skiffs, Runabouts, and Small Cruisers

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4 Cyl. 12-15 H.P.

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It is a complete power unit; more power; compact; free from freak features; simple, sturdy, economical in first cost; inexpensive to operate, long lived; thoroughly standardized as to parts. Bosch magneto; Joss reverse gear; Atwater Kent; Zenith or Schebler carburetor. And it is the lowest priced, complete 4-cylinder motor of its size in America. An engine that will give you 1 1/4 to 2 m.p.h. more speed, with less cost, less weight and longer life.

Put the Power of Niagara in Your Boat

Other models 5 H.P. to 120 H.P.

Write for details (state size of boat and H.P. interested in.)

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Engineers, Manufacturers and Builders of Artistic Steel Floats
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92.838 Miles Per Hour

(Continued from page 25)

could be counted on this time as on other occasions.

To make matters more difficult, the Packard motors with which Miss America VI was powered were the only ones of their size and type in existence. They had gone down with Miss America VI and no one knew what condition they might be in. If they were wrecked or seriously injured the situation would become very alarming, as the motors had taken six months to build and there wasn't time to build another set. For nearly a week the motors could not be located at the bottom of the St. Clair river. Luckily, when they were found and brought to the surface they were found to be in A1 shape. They were taken down, dried out, reassembled and were ready for the new hull in little more than a week's time after they had been raised.

Three days before race day the new Miss America was launched and immediately given a trial trip. So perfectly did she perform that she was pronounced fit to race without further work or any readjustments. She was taken back to her boat house, covered up and her builders and crew given a couple of days' vacation. Miss America VII was ready.

Race day—September 4, dawned bright and fair, but with a trifle too much wind for a 90-mile boat to do her best. It blew up the Detroit River against the down-current, consequently there was quite a chop.

Miss America's trials were scheduled for 10 a. m. At exactly 10 Miss America VII could be seen coming down the river from her boat house at Gray Haven. Although she was two miles away when first seen yet in almost less time than it takes to tell it she was down on the race course. George Wood was at the helm and the old faithful Orlin Johnson at the throttle.

Down the river Miss America VII went on a warming-up run. One such run was enough, for as she approached the timers on the first up-run, George Wood signalled that he was ready. Up past the timers at the lower end of the mile round the racer. William Eldridge, official timer of the American Power Boat Association, gave the signal to Odis Porter, who was beside his electrical timing device. W. D. Edenburn, chairman of the Detroit Gold Cup Committee, was at the other end of the mile course, flag in hand, ready to give the finish signal. In just 45.07 seconds he gave it.

When the speed had been figured it was found that Miss America VII had completed the first run, upstream against the current, at a speed of 91.876 miles an hour.

George Wood spun the racer around and started her on the first run downstream. Just 44.23 seconds time was required to cover the nautical mile. This expressed in terms of statute miles an hour is 93.722. The second upstream run was made in 44.88 seconds, equivalent to 92.365 miles per hour. Run No. 4 took 44.44 seconds or 93.280 miles per hour; run No. 5 44.98 seconds and run No. 6 44.31 seconds, equal to 92.553 miles per hour.

When the grand average had been figured it was found to be 92.838 statute miles per hour.

Commodore Gar Wood, who was on the timing boat with a was naturally quite pleased with the results and his new world record. These were made with a boat of his own creation, produced, as a finished product, in less than three weeks' time. He predicted that with a little tuning up Miss America VII would show the world one hundred miles an hour. This may happen the next time that Miss America VII is raced, which will probably be at the Miami Beach regatta, scheduled for March 22 and 23, 1929.

TIMES AND SPEEDS MADE BY MISS AMERICA VII DETROIT, MICHIGAN, SEPT. 4, 1928

Run Number	Time, Seconds One Nautical Mile	Speed Statute M.P.H.
1	45.07	91.976
2	44.23	93.722
3	44.88	92.365
4	44.44	93.280
5	44.98	92.160
6	44.31	93.553
Average		92.838

Old Record made by Miss America II, 1921—80.567 statute miles per hour.
(See page 108 for complete specifications of Miss America VII)

A Stout Heart for a Stout Craft



JUTTA, fastest German boat of its type, built by Claus Engelbrecht, Berlin, and powered with a 150 h.p. Scripps Motor. The hull is steel. Speed 25 miles an hour.

See that the name on your power plant is Scripps and you need have no misgivings as to its sturdiness. Pound for pound and horsepower for horsepower, "the first motor that crossed the Atlantic" is the stoutest heart that ever beat 'neath a hatch.

Oceans of power! A torrent of speed! Long years of stamina! Yet, withal, a flexibility and ease of handling that

makes its control a pleasure! Twenty-one years of brilliant performance have won for Scripps a world-wide reputation among boat builders and owners.

Nine standard models (high-speed, medium and heavy-duty) ranging in horsepower from 10 to 200 and suitable for use in most every type of boat up to 100 feet. Write for catalog and name of nearest dealer.

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A Comfortable
Home for Seven



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cruiser can still be made for
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Builder, writes us:

"The Philippine Mahogany which I have been purchasing from
you ever since you have been in business has certainly stood up
well in all the race boats I have constructed, and no harder
test can be given to lumber than that used for the bottom of a
speedboat.

"The fact that I have continued reordering from you all these
years proves that I have been satisfied with the good, clear, dark
mahogany with which you have supplied me.

"For your own information, I am enclosing a circular of 'Miss
Ricochet,' one of the many boats that I have constructed and
that has raced all over the country without so much as having a
plank split."

With over three million feet in pile on our yards here and
monthly cargoes arriving, we can furnish practically anything
you may require for thickness, width and length.

We also specialize in 1/4", 5/16" and 3/8" planking for out-
board motor boats.

Prices, samples and circular on request.

INDIANA QUARTERED OAK CO.
222 East Ave., Long Island City, N. Y.

Newport Sponsors Big Regatta

(Continued from page 46)

place and Chris Craft running third.

Curtiss Wilgold III, owned by Commodore C. Roy Keyes
of Buffalo, took the Grand Free for All, at a speed of 48.0
miles per hour; Kittiwake, driven by Mr. M. Eppley, of New-
port, finished in second position and Betty, driven by L. D.
Pierce, was third.

The competition among the outboards was particularly keen.
Entries of over 100 craft driven by outboard motors were
received. While all of these did not start due to rough water,
which prevailed on both days, yet the number that did come out
and run was sufficient to give both spectators and drivers all the
thrills they desired. Classes were arranged in both the Amateur
and Free for All divisions, for classes A, B, C and D. In some
of the events there were as many as thirty starters. The boats
of the two smaller classes raced on courses of 2 miles in length
and the two larger classes raced over 4 miles. All races con-
sisted of three heats.

In the A, Amateur Division, Cute Craft driven by Arthur
Sutherland of Boston, won in the Free for All Class A division.
Miss Fire owned by E. V. Howe came in second.

Zero, driven by E. R. Pickard of Wilmington, North Carolina,
was first in the three heats of Class B Amateur and Miss Mimi-
ford, driven by E. W. Hauptner of City Island, N. Y., finished
first in the Class B Free for All Division. Class C Amateur
was won by Century Cyclone, driven by Malcolm Pope. Al
Buffinton, driving his Cute Craft C-Horse was the winner in
Class C Free for All.

Malcolm Pope, driving his Century Cyclone powered with a
Class C Johnson motor, had little trouble in winning the Class
D Amateur. Century, driven by A. J. Pawling, took first in
Class D Free for All.

The outboard events were supervised by the New England
Outboard Association, with Frank Wigglesworth of Boston
acting as chairman. American Power Boat Association rules
were used and care was taken that all particulars of the rules
were lived up to.

A complete summary of the winners will be found below.

Narraganset Bay Regatta, Newport, R. I.

August 17-18, 1928

Event No. 1—Stock Runabouts under 25 ft. not over 120 hp.

Boat	Owner or Driver	Heat Times		Heat Speeds	
		No. 1	No. 2	No. 1	No. 2
Skidaway	J. R. Sheldon	11:48	11:21	30.51	31.72
Hebgb	W. H. J. Dyer	12:03	12:07	29.87	29.71
Dart	F. Wigglesworth	13:45	12:02	26.18	29.91

Also ran: Chris Craft Cadet, C. C. Smith.

Event No. 3—Stock Runabouts over 25 ft. not over 160 hp.
2 heats—6 miles each.

Boat	Owner or Driver	Heat Times		Heat Speeds	
		No. 1	No. 2	No. 1	No. 2
It	D. C. Arnold	9:27	9:36	38.09	37.50
Chris Craft	B. Smith	9:34	9:58	37.63	36.12
Chris Craft	B. Clark	10:08	9:59	35.53	36.06

Also ran: Miss Gray Gables, A. H. Waitt; Black Beauty, A. J. Utz;
Dolphin Too, W. H. Moreton; Chris Craft, Mrs. F. C. Church.

Event No. 4—Stock Runabouts, Free for All—2 heats—6 miles each.

Boat	Owner or Driver	Heat Times		Heat Speeds	
		No. 1	No. 2	No. 1	No. 2
It	D. C. Arnold	9:06	9:28	39.56	38.03
Betty	L. D. Pierce	9:25	9:36	38.23	37.50
Miss Gray Gables	A. H. Waitt	9:55	9:49	36.30	36.67

Also ran: Chris Craft, B. Clark; Dolphin Too, W. H. Moreton; Kittiwake, M. Eppley; Krazy Kat; Mizumet; Chris Craft, B. Smith.

Event No. 5—Displace. Boats—Free for All—2 heats—6 miles each.

Boat	Owner or Driver	Heat Times		Heat Speeds	
		No. 1	No. 2	No. 1	No. 2
Curtis Wilgold III	C. Roy Keyes	8:02	7:22	44.72	48.96
Betty	L. D. Pierce	9:12	9:27	39.13	38.10
Miss Gray Gables	A. H. Waitt	9:53	9:46	36.42	36.09

Also ran: Black Beauty, A. J. Utz; Dolphin Too, W. H. Moreton; Kittiwake, M. Eppley; Krazy Kat; Chris Craft, Miss Ramsau.

Event No. 6—151 Hydroplanes—Limited—2 heats—6 miles each.

Boat	Owner or Driver	Heat Times		Heat Speeds	
		No. 1	No. 2	No. 1	No. 2
Miss Westchester	E. W. Hammond	9:14	8:40	38.99	41.54
Miss Ricochet	L. Luchenbach	11:18	14:15	31.86	25.28
Baby Ruth	Stan Reed	11:07	DNS	32.38	DNS

Event No. 7—151 Hydroplanes—Unlimited—2 heats—6 miles each.

Boat	Owner or Driver	Heat Times		Heat Speeds	
		No. 1	No. 2	No. 1	No. 2
Sparrow	E. H. Johnson	8:52	8:49	40.60	40.90
Miss Massachusetts	L. Savage	10:16	9:06	35.07	39.60
Baby Ruth	Stan Reed	13:00	DNS	40.00	DNS

(Continued on page 128)

OCTOBER, 1928

Speaking of Auxiliaries

265 MADISON AVENUE
NEW YORK

August 20, 1928.

My dear Mr. Cummins:

Have just returned to my office today from a seven weeks' holiday, six of which were spent on the "Nina" in company with your most perfect engine.

It may interest you to know that we used the engine every two or three days across the ocean for charging our batteries and it was also hooked up to a bilge pump for an emergency which, however, was never used.

However, we did put our propeller on in Santander but I am glad to say the engine never failed us at any time. It was a perfect joy to hear it clicking like a clock and to know in addition that there was no fire risk and no odor and that we had a steaming radius of nearly one thousand miles with such a small increase in our weight.

I shall never have a gasoline engine of any kind in any auxiliary boat again.

You are to be congratulated on the progress you have made in producing this light weight electric starting Diesel engine and tremendous interest was taken in your engine by the sportsmen that came aboard my boat in Spain and France and England.

Sincerely yours,

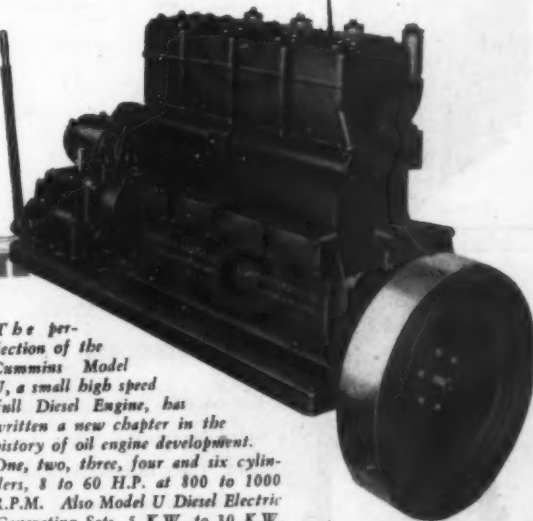
Paul Hammond

PH/JP

C. L. Cummins, Esq., President,
Cummins Engine Company,
Columbus, Indiana.



NINA, 59-ft. auxiliary schooner, owned by Mr. Paul Hammond and Elibu Root, Jr., designed by Burgess & Morgan of New York. Winner of the Queen Victoria Cup in the Atlantic Ocean Race from New York to Santander, Spain, this summer. Powered with a four-cylinder, 32 H.P. Model U Cummins Diesel Engine.



CUMMINS Diesel Engines are setting new standards of power plant performance, economy and safety in cruisers and auxiliaries this year, and are also being widely adopted for electric generator sets in the larger Diesel yachts.

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Philadelphia: SMITH-MEEKER ENG. CO., The Bourse
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The perfection of the Cummins Model U, a small high speed full Diesel Engine, has written a new chapter in the history of oil engine development. One, two, three, four and six cylinders, 8 to 60 H.P. at 800 to 1000 R.P.M. Also Model U Diesel Electric Generating Sets, 5 K.W. to 30 K.W.

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For Bottoms "New Jersey" Copper Paint, Red, Brown or Green. For above the waterline "New Jersey" Yacht White will stand washing and scrubbing. "New Jersey" Spar Varnish will not turn white and holds its gloss.

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PIONEER INSTRUMENT COMPANY
754 LEXINGTON AVE. BROOKLYN NEW YORK

Newport Sponsors Big Regatta

(Continued from page 126)

Event No. 9—Express Cruiser Handicap—2 heats—15 miles each

Boat	Owner or Driver	Heat Times	Heat Speeds
Barjohro	R. F. Shepard	No. 1 36:57 No. 2 43:66	No. 1 24.36 No. 2 20.72
Malalo	F. W. Proctor	50:39 35:06	17.77 25.64

Event No. 10—Stock Runabouts under 25 ft., not over 90 h.p.—1st heat 6 miles, 2nd heat 3 miles

Boat	Owner or Driver	Heat Times	Heat Speeds
Skippalong	H. Hentschel	No. 1 12:37 No. 2 5:59	No. 1 28.53 No. 2 30.68
Bagheera	J. T. Lippett	12:38 6:24	28.49 28.12
Motor Craft	W. J. H. Dyer	13:40 6:57	26.34 26.95

Event No. 11—Outboards, Class A Amateur—3 heats—2 miles each

Boat	Owner or Driver	Heat Times	Best Heat
Cute Craft B-R-R-R	A. Sutherland	No. 1 6:32 No. 2 6:04 No. 3 10:53	Time 6:04 Speed 20.34
Fidget	H. E. Becker	7:03 7:02 8:02	7:02 17.54
Kiddie	G. A. Anderson	7:58 13:05	7:58 15.49

Event No. 12—Outboards, Class A, Free for All—3 heats—2 miles each

Boat	Owner or Driver	Heat Times	Best Heat
Misfire	E. B. Howe	No. 1 6:53 No. 2 6:15 No. 3 6:57	Time 6:15 Speed 19.70
Cute Craft B-R-R-R	R. A. Sutherland	6:57 6:12 8:01	6:12 19.96
Wilkie Baby	J. E. Wilkinson	7:35 DNS ....	....

Event No. 13—Outboards, Class B Amateur—3 heats—2 miles each

Boat	Owner or Driver	Heat Times	Best Heat
Zero	E. R. Pickard	No. 1 5:25 No. 2 5:09 No. 3 4:58	Time 4:58 Speed 24.85
Limit II	W. W. Whittall	6:05 5:21 5:03	5:03 23.8
Flapper	H. B. Joy, Jr.	5:30 5:35 5:29	5:29 22.50

Event No. 14—Outboards, Class B, Free for All—3 heats—2 miles each

Boat	Owner or Driver	Heat Times	Best Heat
Miss Minncford	E. W. Hauptner	No. 1 4:59 No. 2 4:55 No. 3 5:10	Time 4:55 Speed 25.10
Zero	E. R. Pickard	4:24 5:11 7:06	5:11 23.81
Flapper	H. B. Joy, Jr.	5:55 5:43 5:35	5:35 22.10

Event No. 15—Outboard, Class C Amateur—3 heats—4 miles each

Boat	Owner or Driver	Heat Times	Best Heat
Century Cyclone	M. Pope	No. 1 9:21 No. 2 14:24 No. 3 8:46	Time 8:46 Speed 28.15
Baby Cod	P. W. Proctor	9:31 11:07 10:58	9:31 25.93
Muriel	H. E. Becker	10:27 9:35 9:49	9:35 25.75

Event No. 16—Outboards, Class C, Free for All—Three heats, Four miles each.

Boat	Owner or Driver	Heat Times	Best Heat
Cute Craft Chorse	A. Buffinton	No. 1 9:23 No. 2 9:17 No. 3 8:50	Time 8:50 Speed 27.93
Wings	J. E. Wilkinson	9:19 9:22 9:29	9:19 26.49
Wiss Winstead	G. Mikkelsen	9:35 8:58 10:07	8:58 27.52

Event No. 17—Outboards, Class D Amateur—Three heats, four miles each.

Boat	Owner or Driver	Heat Times	Best Heat
Century Cyclone	M. Pope	No. 1 9:37 No. 2 10:31 No. 3 9:54	Time 9:37 Speed 25.66
Green Scarab	R. Emerson	DNS 11:47 12:04	11:47 20.94
Herbst	P. Emerson	23:33 23:33	10.40

Event No. 18—Outboards, Class D, Free for All—Three heats, Four miles each.

Boat	Owner or Driver	Heat Times	Best Heat
Century	A. J. Pawling	No. 1 8:29 No. 2 8:31 No. 3 8:37	Time 8:29 Speed 20.09
Cute Craft Chorse	A. Buffinton	8:50 8:47 8:41	8:41 28.43
Havatampa	W. C. Melloon	9:33 8:52 15:40	8:52 27.83

Event No. 19—Stock Runabouts not over 30 ft., not over 200 h.p.—Two heats, 6 miles each.

Boat	Owner or Driver	Heat Times	Heat Speeds
It	D. C. Arnold	No. 1 9:10 No. 2 9:04	No. 1 38.27 No. 2 39.71
Betty	L. D. Pierce	9:26 9:36	38.16 37.50
Chris Craft	B. Smith	9:57 9:11	36.18 39.20

Also ran: Miss Gray Gables, W. H. Moreton; Krazy Kat, Manumet II, Dolphin, Black Beauty and Miss Ramsus.

Event No. 20—Ladies' Race—Handicap—One heat, 6 miles.

Boat	Owner or Driver	Heat Times	Heat Speeds
Black Beauty	Mrs. A. J. Utz	10:58	33.96
Dolphin Too	W. H. Moreton	10:55	33.23
Chris Craft	Miss B. A. Clark	9:47	36.80

Also ran: Betty; Manumet, Miss Goodwin; Chris Craft, Mrs. F. C. Church; Dart, Helen Hentschel; Hebg, F. C. Church; Bagheera, Mrs. Lippett; Motorcraft, Rita Dola.

Event No. 21—Free for All—One heat, 6 miles.

Boat	Owner or Driver	Heat Times	Heat Speeds
Curtis Wilgold III	C. Roy Keyes	7:30	48.00
Kittiwake	M. Eppley	7:43	46.65
Betty	L. D. Pierce	9:31	38.03

Also ran: Miss Gray Gables, A. H. Waitt; Krazy Kat; Black Beauty A. J. Utz.

Lionoil "welds"

spar varnish to wooden hulls



Note how Lionoil penetrates—"anchoring" the three succeeding coats of spar varnish.

Penetrating deep into the wood—Berry Brothers' Lionoil seals the pores and provides an "anchor" coat that holds fast to the hull succeeding coats of spar varnish.

While Lionoil serves in thousands of different capacities throughout industry, it is so generally used as a first coat by boat and canoe builders that they have dubbed it "Lionoil First Coater". This material has almost entirely replaced boiled linseed oil which was used in many plants for this purpose. Lionoil dries quickly and is far more resistant to wear and exposure.

First-coat with Lionoil and you save one coat of spar varnish. Furthermore, the spar will not chip off or peel as it will from surfaces not Lionoiled.

Use this material on your hulls and provide them with the utmost in protection. You will know your finishing job is right. A descriptive folder gives important details—write for it.

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Makes Anchor Raising Easy

THIS simple practical device makes anchor raising the easiest job on your boat. The Sturges Anchor Hoist provides every requirement for lowering and raising the anchor with minimum manual effort. When not in use, the davit and the hoist can be unshipped, leaving only the base on deck.

The Sturges Anchor Hoist is made for any type of anchor up to 100 lbs. Sturdily built, heavily galvanized. Furnished entirely in brass at slight extra cost. The davit can be designed especially to fit your boat without extra cost.

Made in three sizes—0, 1 and 2.

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Easily installed by anyone without disfiguring or marring your cruiser in any way.

Model No. 2 with 3 speed transmission, for anchors 60 to 100 lbs. The low speed gives powerful leverage for breaking the anchor loose from a mud bottom. Second speed (on which the handle is shown) is normally used for hoisting the anchor. The high speed or direct drive on main shaft is for quickly reeling in the slack of the rope. Note also the open type block on the davit which permits quick application of the service line over the pulley.

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Gasoline engine direct connected to electric generator. Runs 40 lights, percolators, grills, fans, etc., $\frac{3}{4}$ H.P. motor for pumps, anchor hoist, electric tools, etc. Husky and long lived yet stows in space $1 \times 1\frac{1}{4} \times 2$ ft. Thousands in use the world over. Write for description.

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Keep your Boat "Ship-Shape"—



Waterproof
24 oz.
Boat Covers

used by U. S. Army as ammunition covers, give years of bone dry service—excel ordinary boat covers. Made with ropes attached.

$5\frac{1}{4} \times 9\frac{1}{2}$, \$7.50; $10\frac{1}{2} \times 18\frac{1}{2}$, \$35.00; 8×10 (12 oz.) \$8.50.

Write for complete catalog.

E. J. WILLIS COMPANY

85 CHAMBERS STREET—NEW YORK—67 READE STREET

Boat Building Under Difficulties

(Continued from page 35)

finishes like mahogany, is very pretty, and quite tough. It answered admirably and the builders laid the keel in what they thought was the most approved manner. That first keel warped, however, and the primeval stillness of Los Banos having already been disturbed by the unaccustomed racket of boat building was now shattered by volleys of the most unique language.

A second keel was laid. It stayed laid this time and the delighted builders turned to cutting out the stem. Molavi was used for the stem—a wood which has the reputation of being so hard and so heavy that it won't float. Actually it was not so bad and after finding the stem timber alternately too long and too short from one day to the other they finally stretched it to its right dimensions.

Between showers and arguments the work progressed slowly. With regard to the arguments one of the builders of the dinghy said later, "One of the features of the whole thing was the fact that both of us would go out to work on the tub in the morning knowing well that by night we'd be so mad at each other that we wouldn't speak. This was due to differences of opinion on points which neither one of us knew a damn thing about." Be that as it may, it is a further fact that whenever the rains and arguments let up for a while the ants and mosquitoes were sure to make it interesting. The whole building of the boat, incidentally, had to be done in the open and with the hammering and sawing and constant clawing at insects the entire business presented an appearance of most remarkable activity to the natives of Los Banos.

When it came time to place the ribs or frames on the dinghy, Berger and Ellis went into conference. The designer, in his complacent way, had talked smoothly about steam boxes for bending the frames. The builders recalled that steam boxes were about as common in Los Banos as icebergs, and damned him thoroughly. But being resourceful men they finally hit on a scheme. Near by were several natural hot springs on the lake shore. That was enough. Each frame was tenderly carried down to the bath and steamed relentlessly. It worked well, and after hours and hours of toil during which they were assisted by the laughter and derision of onlookers, the frames were set.

All Los Banos was exceedingly skeptical—almost cynical. Natives inspected the half-finished hull and shook their heads. The Chinese cook quite ran out of sympathy before they were half finished, and the mess boys at the station, not having the self control of the Chinese, laughed outright.

Then it came to planking. And, to quote Berger, they "had a h— of a time with the planking." The tools they had were few and crude. Chinese tools for the most part; saws and drills. The saw looked (and acted) like the old fashioned cord-wood saw which, luckily, has long since gone out of style in this country. The drills were worse. They were fashioned much like the twist fiddles used by boy scouts in their attempts to make fires without matches. Truly awkward tools—and ones which the builders soon found making far more impression on their tempers than on the boat timber. A soft, light wood known as Red Lauan was used for the strakes but it seems to have been the only soft thing connected with the planking operation.

When the planking was set, a few typhoons arrived on the scene. The anxious boat builders feverishly erected a makeshift roof over their infant dinghy and guyed it with all the wire cable to be found in the station. Lady Luck was present, however, and it rode out these disturbances in good form. The builders were surprised and grateful and hurried on with their labors.

Next came mast and boom. These were fashioned out of Gehu, another hard wood with the appearance of mahogany. Then the thwarts and center-board trunk were cut out of Narra and installed. The specifications of the designer were followed as closely as possible and eventually, to the delight of the two builders, and (likely as not) to the disgust of the entire station, Ishmar, as they called her, turned out to look a good deal like the blue-prints.

But Berger and Ellis' thorny path to boat building knowledge had made them a bit pessimistic. They decided to test out the hull in their swimming pool, before putting on the finishing coats of paint and varnish, to see if she would float on an even keel. They were almost as much astonished as the Chinese cook to see that the dink behaved beautifully. Their reputation was saved and after addressing a few cutting remarks to the skeptics of Los Banos they launched Ishmar in Lake Laguna and sailed triumphantly away on a trial trip.

Now these ambitious sailors knew rather less about sailing than they had about boat building, but they had mastered boat building by jumping in head first and they vowed that there was no reason in the world why they couldn't get a strangle hold

(Continued on page 132)

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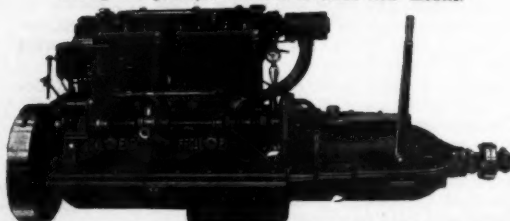
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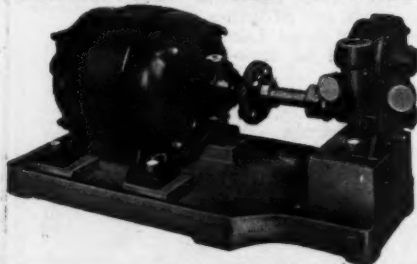
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Boat Building Under Difficulties

(Continued from page 130)

on sailing in the same manner. The wind was strong on the first trip and the lake was frothy but the dink carried her full 98 square feet of sail like a clipper. In fact Berger boasted that they sailed Ishmar for ten days straight before leaving Los Banos without turning over once. The conquest of mind over matter.

But their glory was short-lived. A few days after the launching the two builders were transferred from their station at Los Banos to sea. The pride of the Philippines was left behind.

Nevertheless Berger writes that she is "still doing her stuff for the rest of the boys." And she probably will for a long time to come, for he adds, "I want to congratulate the bozo who drew the plans for that boat. Apparently he knew his oil, for I can't help believing that he put an extra margin of safety into it. We were both green at sailing and the day of the old tub's maiden trip the waves were three feet high at least. We bounced around in a heavy wind with full sail for about two hours that day and we lived to tell the story."

Bigger and Better Cruisers

(Continued from page 34)

enough to make very much difference in layout of the cruiser but Matthews claim that it has permitted them to add new conveniences to the interiors of their various models. We will enlarge upon this a bit later.

As heretofore, the Matthews 38 line still consists of a family of boats; the 1929 line-up embracing five different models on the 38 hull. The family includes the following stock models: Single-Cabin Cruiser, Double-Cabin Cruiser (both open and enclosed bridge), Day Cruiser (in both open bridge and deck house style), Sport Fisherman Cruiser, and a new boat to be known as the Sport Cruiser, which has a 150 h.p. Kermath engine as standard equipment.

To illustrate what has been accomplished by the extra length of the new 38 in the Double-Cabin Cruiser, it has been possible to develop an aft cockpit which is sunk 14 inches below the deck line and is 4 feet 6 inches in depth, with plenty of room for three full-sized wicker chairs. This particular job is already receiving much favorable comment on account of its handsome appearance and the convenience of the interior arrangement. A welcome innovation is the extension of the canopy over the cockpit or deck-house proper amidships, the roof extending over the windshield line into a vizio or sun-shade, giving a very pleasing continuity of line. The side windows in the deck-house are also longer and lower.

In the Single-Cabin Cruiser, the cockpit has been lengthened, the hatches over the engine made flush with the cockpit floor and the steering wheel moved forward four feet. In the Day Cruiser, additional space has been placed in the forward deck. The Sport Cruiser is equipped with both galley and toilet. It is a remarkably complete outfit, with four pullman berths in the cabin, and in the forward end of the cabin a ladder and hatch leading into the forward cockpit, which is sunk into the forward deck. The aft cockpit is completely protected by an ample canopy. This new job appears ideally suited to the use indicated by its name.

The extension of the cockpit canopy or deck-house roof mentioned in connection with the Double-Cabin Cruiser is also embodied in the stock Day Cruiser, in which also a new seating arrangement has been effected forward of the windshield in a manner that adds greatly to the comfort and appearance of the boat.

Taken in connection with the new Matthews 32-foot Speed Cruiser recently announced, and some notable improvements in the 46-footers, the foregoing summary of the 38 family for 1929 indicates that The Matthews Company are making good their intention of making their 38th anniversary year an event of considerable importance to the boat buyer.

More Power in Diesels

(Continued from page 50)

tion has completed other sizes of engines of light weight per h.p. Among them are twelve cylinder V-type 3000 h.p. engines and six cylinder in-line 300 h.p. engines, a pair of the latter of which are under construction for L. M. Wainwright.

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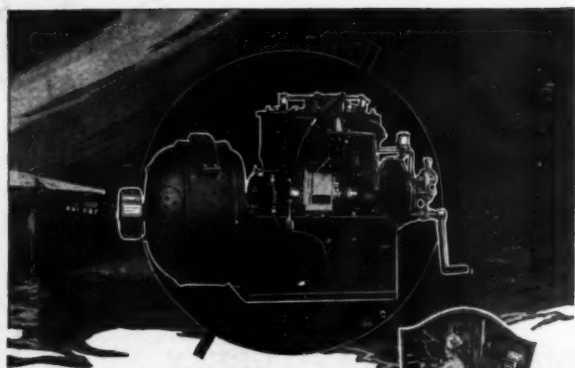
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The Amateur Boat Builder

(Continued from page 56)

the keelson is in place, when one through fastening at each floor answers for both.

Before the floors are fastened in place some thought should be given the limber holes. These are passages cut in such a manner that bilge water may find its way to the pump well. Sometimes they are cut from the bottom of both frame and floor at the lowest point, and again a hole may be bored through a deep type floor above the frame and cement or asphalt filled in to this level. If the floors are shallow and some extra weight is no objection, asphalt can be run in to the tops of them which insures a free flow and a clean bilge. When holes of any kind are cut they should all be in line so that a chain can be rove through them from end to end of the bottom. Pulling this back and forth keeps the limbers clear of dirt. A spring rigged at one end makes it possible for one person to operate it.

After the floors are all fitted and fastened we are ready to prepare for the removal of the moulds. Transfer the marks representing the deck line and the load water line from the moulds to the nearest frames. Fit cross spalls on these frames, fastening them with screws or nails. There should be one at about the load water line and one at the frame head. These cross spalls should be located so that they will not interfere with the fitting of the clamp or any side stringer. Also brace these frames overhead or to the floor, as the case may be, so that the whole structure will be held in place. The moulds may now be removed and any remaining frames and floors fitted.

FRAMING SMALL LAP STRAKE BOATS. Frequently small boats with lap strake planking are framed after the planking is finished. Later I will tell how this planking is done, but for the present let us assume that the boat is planked over a set of moulds such as is shown in Fig. 23, Part IV of this series and turned right side up.

First, with the aid of a batten, mark the frame stations on the edge of each strake of plank, as previously described for marking the ribbands. Then in the center of each plank lap and half the siding of the frame from the marks just made, bore a hole for the fastening. The best fastenings are copper wire nails riveted over burrs and the holes should be bored with a twist drill of such size that the nails will be a tight fit.

Frames for such boats are made in one piece from gunwale to gunwale and should be gotten out with some length to spare and planed on all sides. As they are exposed on the inside it improves the appearance to round the inside corners slightly. Being small, twenty minutes or so of steaming should be sufficient.

Take a hot frame from the steam box, and grasping an end in each hand, bend and push it down to the keel, where an assistant secures it with a nail or with a temporary shore to some place overhead. Then with the hands bend and twist it so that it lies snug against the planking at each lap and secure it to the upper edge of the sheer strake with a clamp. A final tap or two on the end with a hammer will insure a snug fit. It is a job for two, each handling a side, and the technique of handling, giving excess bend, etc., is just the same as fitting to ribbands.

See that the side of frame is exactly at the marks and put in a nail at each lap, beginning at the bottom and boring through the frame for each with a suitable drill. Do not put any fastening at the top of the sheer strake at this time. It is best to leave the riveting until all the frames are in and then make one job of it. When all the intermediate frames are in, fit cross spalls and braces as may be necessary to hold the boat in shape, remove the moulds and fit the remaining frames.

Floors may be fitted at the sides of the frames and fastened to them if the frames are large enough. When too small to take such fastening the floors are located between frames. They are often straight on top to take the foot boards and the bottom edge should be fitted to the planking so that it is supported between laps.

FRAMING V BOTTOM BOATS. The framing of a V bottom boat is comparatively easy for the amateur, as the frames are straight or nearly so. The floors and connections to the keel are the same as for round bottom boats, so nothing further need be said regarding them.

When the bottom frames and side frames meet at the knuckle a suitable connection must be made. First there is a longitudinal member called a chine made of oak or yellow pine and rabbeted for the planking. This is a rather difficult part to fashion as the shape changes throughout its length. The shape at each section is developed on the body plan and the chine made accordingly or a suitable ribband may be bent around the moulds and the proper shape determined from the boat direct. In cheap work the rabbeted chine is often omitted and the planking simply fastened to a reinforcing ribband on the inside, like a flat-bottomed row boat.

(Continued on page 136)

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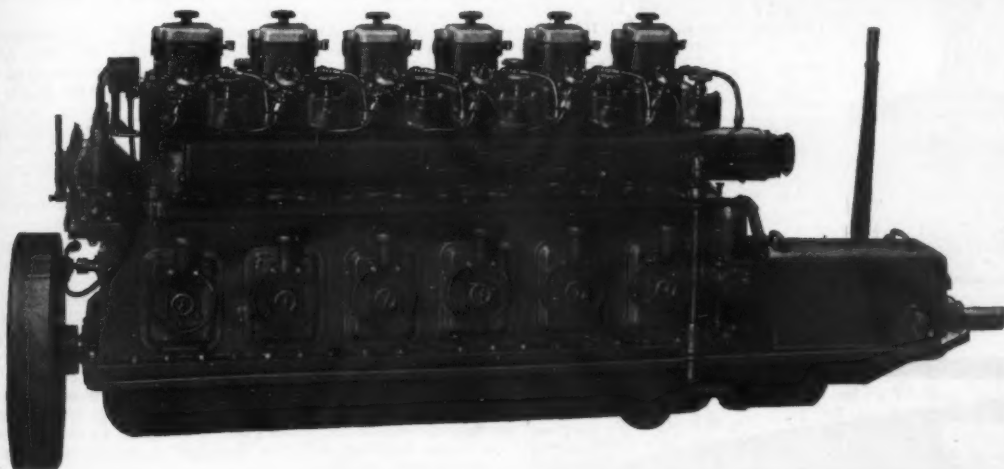
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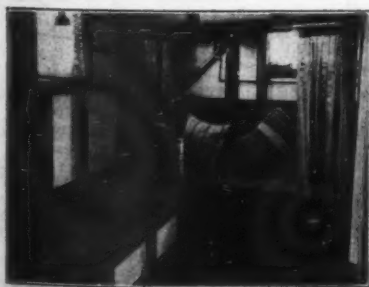
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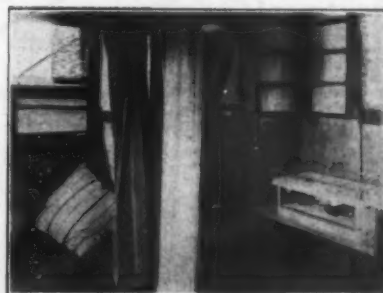


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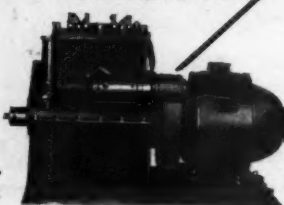
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The Amateur Boat Builder

(Continued from page 134)

Fig. 31 shows four ways of connecting the frames at the chine. A, B and C show straight frames butting against the chine or let into it slightly. The corner is then reinforced with some type of knee. D shows a steam bent frame in one piece which is lighter, and simpler for a professional, but a very sharp bend is required, making it rather difficult for the inexperienced. It is necessary in this case to fit triangular shims next the chine to support the plank and it is a good plan to fit a knee every third or fourth frame to stiffen the corner.

ISHERWOOD FRAMING. I give it this name for want of a better one. It is similar to a system of framing developed and patented by Sir Joseph W. Isherwood for steel ships and consists generally of extra heavy frames, widely spaced, and numerous longitudinal girders. The idea is well adapted to small wood boats of the fast runabout type.

For V bottom boats the frames are sawed from straight stuff, lapped or otherwise connected at the chine. See Fig. 32. For round bottom boats natural growth crooks are required, which limits the size of boat. Large size hackmatack knees sawed to the proper thickness are ideal for this purpose, being fairly light and very tough. These knees can be obtained up to 12 inches thick and the mill will rip them into slabs of any desired thickness. Two or three large knees will thus furnish all the frames for one boat. I once went to a lumber yard with the intention of selecting a few knees for just this purpose and quite by accident stumbled into a pile of slabs about an inch thick that had been sawed from the sides of large knees. They were doomed for the furnace, so I purchased a lot of them for the ridiculous price of ten cents each.

The frames have small siding with comparatively large moulding and are widely spaced, two to three feet. Fairly heavy ribbands are let in flush and spaced to take the plank edges, like a batten seam boat. An alternative is to use ordinary light seam battens and bend in small intermediate frames.

When this type of framing is employed it is not necessary to build temporary moulds, provided the designer has thoughtfully arranged to have the frames at the designed sections. The built-up frame, together with the floor and a cross spall, is in reality a permanent mould.

To Be Continued.

A Baby Buzz Runabout

(Continued from page 57)

keel and screw fastened to the transom frame. The breast hook to be of oak or mahogany about 1¼ by 4 inches and be notched to take the end of the sheer clamp and rivet fastened to it with ¾ inch copper rivets and screw fastened to the planking. Chine breast hook to be of same material and size, but screw fastened to chine pieces.

SEATS: While the seats are located and dimensioned, the detail and type is left to the taste of the builder. The location should be adhered to to maintain a good distribution of passenger load.

FINISH: Painting or finishing is left to the taste of the builder. It is, however, recommended that the entire hull have at least two coats of a good quality paint or spar varnish inside and out after being completed.

STEERING GEAR: Fast outboard boats of this type should be equipped with a steering wheel with steering connections to the motor, as it affords much comfort to the driver. Placing steering wheel just forward of the rear seat instead of the forward seat enables the driver to have direct control of the motor without control connections to the steering wheel, thus reducing the cost of equipment. The least expensive way is to steer with the motor handle direct from the rear seat.

CAUTION TO NOVICE: A great part of the trouble and difficulty of building this boat will be eliminated if care is taken to see that work is started correctly. The form and beauty of the lines of the boat are established by correctly made bow piece, keel, stern and frames properly located and rigidly held in place, as shown on drawings. The balance of the work is only detail and cannot affect the general design of the craft.

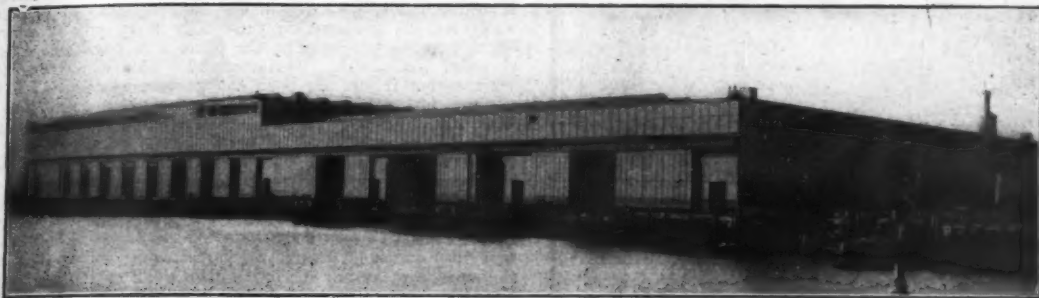
Gray Issues New Catalogue

The Gray Marine Motor Co. have just issued a new 32-page catalogue and a new 16-page catalogue; one covering the Gray line of fours and the other covering the line of sixes and eights. This is the most comprehensive literature that has come from the Gray presses in years and is replete with technical information as well as over fifty illustrations of boats of various sizes in which Gray marine power plant are standard equipment. The data is ready for distribution and will be forwarded immediately to any one desiring it.

OCTOBER, 1928

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MoToR BoatinG's Market Place will put you in touch with a buyer. (See advertising rates on page 187.)



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by

JOHN BLISS & Co., Inc.
83 Pearl Street, New York City

Aquaplaning for Thrills

(Continued from page 56)

ducks under water. Just now is about time to start coming up. If you can hold your breath and hang on against the rush of water and its pressure on your body it is only necessary to throw your weight back on the plane and it will shoot up out of water like a fish. Be forewarned. This is no stunt for a beginner but if you are good enough to master it, it has them all beat for thrills. It may be harder to come up than you think but you can let go before your wind is all gone and swim to the surface.

We got a thrill from playing snap the whip when boys and you can get a man size thrill from snapping the whip on an aquaplane behind a fast boat. Get on the plane and let the operator try to throw you off. The plane must be controlled and as the boat turns sharply the skid must be used to make a wide turn and hold a balance. Just imagine a boat at 25 miles making a turn at full speed and then think of the speed of the plane cutting across in a skid and straightening up behind the boat. With a good boat the operator can do some stunts too by suddenly slowing down and then opening up on a sharp turn, but he must not let the tow line go slack. The plane may work off so far on a skid that the line starts to slacken. Then a quick reversal of the skid is all that will prevent a spill and it may happen anyway.

W. B. M., Newburgh, N. Y.

A Vee Bottom Aquaplane

THE sketches show three types of aquaplanes that have proven satisfactory. One the ordinary speed type, the large slow speed type and finally an improved V bottom model which is a marvel in action.

In aquaplane design the size of the board should be designed in accordance with the speed at which it is to be towed. For instance the small speed type board will not perform at a speed less than 15 miles per hour with an ordinary size person aboard. Yet the larger type will plane with one passenger at a speed slightly in excess of seven miles per hour. Therefore the area of the board should be increased as the speed of the craft decreases. The boards illustrated are for seven, fifteen and eighteen miles per hour. The boards are very easy to construct, the V bottom model requiring some little more work than the others due to its inherent details of construction.

The flat boards are generally made of white pine or other light wood. The writer used cypress which was found to be excellent. Tongued and grooved material is good to use and it gives something for the planks to edge against. Of course cleats are run across the top to hold the outfit together and also to provide a foothold.

The V bottom plane is constructed of similar material being built around the three frames.

Finish the boards as desired. If the wood will take a smooth finish varnish if desired, it would be well to sprinkle a little sand where the feet are to rest to prevent slipping after the surface has been wet.

There is hardly anyway to describe how the board or plane should be handled as most every one has a different method of boarding and getting to the upright position. One way is to lay flat on the board until it has gained some speed and then gradually straighten up.

It will be necessary generally to mount the V bottom board while in motion as it will require considerable practice to handle easily and it cannot be said that it is as easy to ride than the flat type.

If you are new to the experience of aquaplaning do not attempt high speed running until you are thoroughly capable of handling yourself when thrown off, as water is mighty hard to hit when traveling fast. By fast we speak of speed around thirty m.p.h.

H. S., New Orleans, La.

Elena Laid Up Twelve Years Before Spanish Race

The success of Elena in winning the sailing race to Spain recently is doubly interesting in view of the fact that she was by no means a new hull but had been laid up for a number of years and was reconditioned especially for the event. The principal work of fitting out this vessel was carried on at the yards of the Greenport Basin & Construction Co., Greenport, N. Y. Among other things she was given a new foremast and mainmast supplied by the American Mast & Spar Co. All masts and spars were made exact duplicates of those formerly in her so all the former rigging and iron work fitted perfectly.

The sail work for this vessel was done by J. H. Auders.

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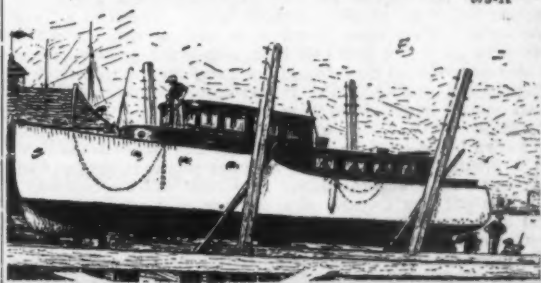
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Eleven Cruisers in Ocean Race

(Continued from page 43)

rough trip and it's only the more venturesome cruiser owners who care to subject their boats and themselves to this strenuous test of their seamanship and boat handling ability. The course being largely offshore makes it necessary to navigate carefully so that unnecessary mileage is not covered by wandering off of the straight line. It is remarkable how many more miles can be covered in a run of this kind if the navigation is not carefully attended to. This year the gale of the day before had caused unusually high tides in New York Harbor and held large volumes of water in it. As the wind died down this heavy current was released and a much heavier current than usual set across the course of the boats from Jones' Inlet to Scotland. It was necessary to allow for this by a half or three quarter point correction and those boats which made this allowance managed to keep on a direct line to the lightships. Others which followed the course as laid out were set off to the south by considerable amounts and had to retrieve this distance to their loss.

Commodore John A. Bullard had entered his new cruiser *Evader* in this race but developed ignition difficulties with it during the day which stopped his engine. He was overtaken by several other boats who offered help but declined assistance until *Sea Dream III* owned by G. DeF. Lerner of the New York Athletic Club came by and despairing of being able to start again, accepted a tow from *Sea Dream*. After about a half hour's progress the difficulties in the wiring were remedied and the power plant again functioned so that the boat was able to continue under its own power. The time lost by both during these maneuvers was sufficient to destroy their chances of winning the race and *Sea Dream* having a long journey to her home port decided it would be best to continue directly for home and did not attempt to finish the race. The interest of *Sea Dream's* owner in cruiser racing is very strong since the boat was returning from a three week's cruise on Chesapeake Bay and returned from this vacation trip a day or two earlier than necessary in order to take part in the race. It was unfortunate that her chances were sacrificed by her Good Samaritan deed.

Isis II did not complete the course although she returned safely without explaining the reason for her actions. The remaining eight boats in the contest came in quite closely to their scheduled times as computed by the committee, the maximum variation from the schedule being in the case of *Brickton IV*.

This boat which has passed into the hands of new owners has not raced in over a year's time and apparently she has not quite the same energy which she exhibited when she was handled by Commodore Bobrick, her first owner. Had the boat performed as well as she did a year ago she would have finished the course at least three quarters of an hour sooner and as a result have been among the leaders.

The first prize was awarded to *Paducah*, owned by P. J. Downey, Jr. while the second as well as the time prize went to *Idler III* belonging to Otto E. Von Au. *Mary O*, one of the Diesel powered small cruisers in these waters was awarded third place. *Paducah* was built by the Johnson Boat Works, Bergen Beach, and is powered with a four-cylinder Scripps engine. *Idler III* is a large vee bottom cruiser built by the New York Ship Yard and powered with a six cylinder heavy duty Stearns engine. *Mary O* was built on the Pacific Coast and is powered with a Cummins Diesel engine. A complete summary of the race follows:

Sheepshead Bay Ocean Race September 16, 1928 45 Nautical Miles

Boat	Owner	Club	Schedule Rating Time	Actual Time	Difference	Position
<i>Paducah</i>	P. J. Downey, Jr.	400	5:00:00	4:55:10	4:50 early	1
	Sheepshead Bay Yacht Club					
<i>Idler III</i>	Otto E. Von Au	351	4:19:30	4:23:30	4:00 late	2
	Sheepshead Bay Yacht Club					
<i>Mary O</i>	Arthur J. O'Connor	428	5:21:00	5:40:35	19:35 late	3
	Sheepshead Bay Yacht Club					
<i>Starlight</i>	Harry B. Wood	374	5:04:30	5:24:47	20:17 late	4
	Sheepshead Bay Yacht Club					
<i>Zenith</i>	H. G. Granneman	360	4:30:00	4:56:20	26:20 late	5
	Pilgrim Yacht Club					
<i>Happy Hours</i>	Edward J. Whalen	439	5:29:15	6:06:00	36:45 late	6
	Sheepshead Bay Yacht Club					
<i>Nomad</i>	Edgar L. Thompson	424	5:18:00	5:55:12	37:12 late	7
	Sheepshead Bay Yacht Club					
<i>Brickton IV</i>	Don J. Lowell	306	3:49:20	4:35:30	49:00 late	8
	Sheepshead Bay Yacht Club					
<i>Sea Dream III</i>	G. DeF. Lerner	403	5:02:15	DNF		
	New York Athletic Club					
<i>Evader</i>	John Bullard	331	4:08:15	DNF		
	Sheepshead Bay Yacht Club					
<i>Isis II</i>	Joseph Ford	498	6:13:30	DNF		
	Sheepshead Bay Yacht Club					

Solving the Used Boat Question

THE Marine Trade Association announces a new plan which is being considered by the officers of the Association, and which, if successfully worked out, will without question be a tremendous stimulus to the sale of boats and be of general assistance to its entire membership dealing in both new and used boats.

There is a growing tendency on the part of boat owners when they become interested in a new and usually a standardized craft, to ask the dealer selling the new boats to take their old boat in trade. They are of course accustomed to this trading proposition from the automobile business where it is said that almost 80 per cent of all the sales made are accompanied by the trade-in of an old car. The percentage is not that high it is true, in the boat field, but it is a well known fact that every year more and more boats are offered in trade as part payment on the sale of a new one. Some of the boat dealers and distributors around New York City have made provisions for trading in these second hand boats; others are unable to do it and offer as an alternative the plan of trying to find a buyer for the second hand boat so as to clear the way for the sale of every new one. Whether the dealer takes a boat in trade or pursues this latter course, it means that a market must be found for the used boat and with the cost of selling as high as it is, it usually represents a loss to the dealer. By the very nature of their business it is unprofitable for the established yacht brokers to attempt to sell these smaller, cheaper boats. Theirs is a fixed remuneration. They have found it is just as easy to sell a \$10,000 boat as it is a \$1,000.00 boat with a far greater return. It is only natural that they should not exert very much effort in the sale of the smaller craft. It therefore devolves on the individual dealers to get rid of these traded-in boats.

Practically every dealer will testify that if a ready market for the used boats could be found so that they might trade them in to a greater extent, more of the new boats would be sold. By the same reasoning the dealer who must sell his customer's boat before effecting the sale of a new one, will admit that if a central agency of some kind could sell these boats which must be gotten out of the way, his business on the new boats would also be increased. If the plan under consideration by the Marine Trade Association is put into effect, and there is every indication

that the preliminaries can satisfactorily be worked out, there will be established a central bureau or brokerage department in the M.T.A. handling these trade-ins of its members, devoting its entire time to their disposition and take up the work where the present yacht brokers leave off.

When this agency starts functioning, it will without question bring about the results so definitely desired by the boat dealers in and around New York City. They will be able to trade more freely, even allow more money and therefore sell more boats. Their total expense in the sale of these traded-in boats will consist of a small brokerage fee exacted by the Association so that this department of the Association may be self sustaining. In every case without question, this expense will be lower than if they sold the boats themselves.

In charge of this department will be a competent, experienced man, who can supervise not only the selling of the boats but their conditioning, appraisal, survey them, etc., and it will go a long way toward preventing the boat business from falling into the same rut the automobile business has. It is a well known fact that the second hand cars are a curse to that industry. It is a common thing to see an automobile dealer with his entire profit tied up in a lot of used cars with no ready outlet for them.

The plan of the M.T.A. in this respect is a very ambitious one and the feature as noted above, is merely what is hoped to be the first step in the merchandising of these used boats. Later developments will no doubt see it handled on a larger, more comprehensive scale than has heretofore been considered. When this department is established, its service of course will be available only to members of the Association. Whereas the initial charge or commission for selling a second hand boat will be made as small as it possibly can be, eventually this charge will be further reduced since the Association does not operate for profit but entirely for the convenience and development of its membership. It is not to be construed that the M.T.A. is competing with the yacht brokers. This is absolutely not its intention and will not be the result. It will merely render to its members service that is not available today through any of the existing yacht brokers or agencies.

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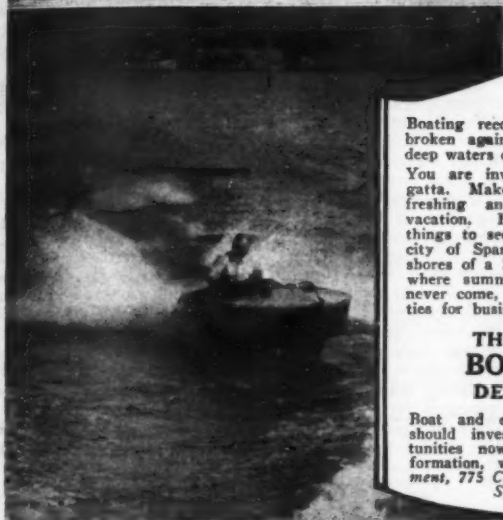
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Boat and engine builders, especially, should investigate. Wonderful opportunities now open! For further information, write to Industrial Department, 775 Chamber of Commerce Bldg., San Diego, Calif.



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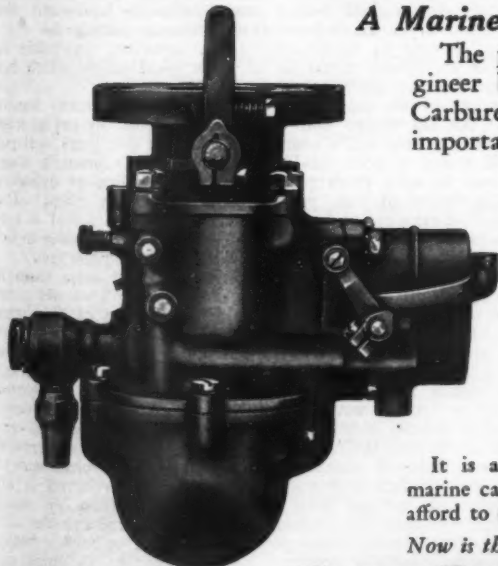
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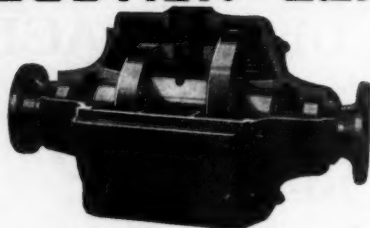
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JERSEY CITY, N. J.

Mahogany for Boat Hulls

(Continued from page 59)

ticular wood that is in the boat he is selling if it does not happen to be mahogany.

Then too, the beautiful natural finish that can be given to mahogany presents a fine appearance in the showroom or in the water and the impression created in the minds of his customer cannot be overestimated, by this attractiveness.

The owner of such a boat has considerable confidence in the hull that is worth a lot in peace of mind. The seams will remain tight for a long time because the wood is particularly free from the excessive warping, shrinking and swelling that causes boats made of other woods to loosen or open at the joints. He need have little fear of rotting. If finished bright it does not discolor as oak does and need not be bleached before refinishing and this refinishing is not so hard as with most woods. The wood possesses good wearing qualities because of the close grain and uniform hardness. Some woods with hard and soft spots do not wear uniformly.

Then to the owner there is another point that is quite important although sometimes overlooked. Most people buy boats with little thought that they might have to sell them at some future time. A hull of mahogany will command a higher resale price in any market, for such a hull has many years of service ahead of it and most people know this.

Some people object to the use of mahogany on account of the high cost of the material, but in these days of high wages and high overhead, the material item is not so very great in proportion to those other items of expense and does not amount to much increase over other woods not so good for the purpose. The amateur builder is inclined to think of this greater cost, but as he is getting his work for nothing he should be willing to put some extra cost into the material and have a boat in which he can take pride. In this country we do not use teak very much and it is not generally known among our people, yet it is probably the finest wood for this use and as might well be imagined very high in price. This does not in any way throw discredit upon mahogany, for mahogany is all that the designer, the builder, the salesman and the owner can want for boat construction and at the same time is readily procurable.

L. R. K., Philadelphia, Pa.

On Buying a Used Engine

By J. S. LOBENTHAL

General Manager of Bruns Kimball & Co.

THERE is no reason why a rebuilt used engine should not give the very best of satisfaction. The writer has personally known of cases where a rebuilt motor gave more satisfaction than did the same motor when new. This has been particularly true in the case of some of the cheaper machines, in which the original design, construction or equipment was faulty, and in which defects were overcome during the overhauling incident to rebuilding. It is, however, reasonable to ask that the rebuilt motor be of some good make, which has a reputation for giving good satisfaction.

The age of the engine is not so important as many buyers think. An old engine will require more work in the process of rebuilding than will a nearly new one, but this work will put the old motor in good condition if the work is properly done. This may in some cases necessitate the regrinding of cylinders and the fitting of new pistons as well as new rings. The principal advantage, in buying a newer machine is that it embodies improvement in design not to be found in the older model and may be in slightly better general condition in the end.

The term rebuilt has been much abused. In some cases it is simply meant by those using it, a scraping-off of old paint and a coat of new paint with a little polishing of the brass work. It is certain that no business house is going to lay down a motor for a buyer's inspection unless they are paid for doing so. It is also very doubtful whether or not the average buyer would be much wiser if this were done. A scored cylinder or broken casting would show under these conditions, but these defects could also be determined by a careful examination without taking the motor down. If the compression of each cylinder is tested in turn with the spark plugs out of the other cylinders and the compression fully relieved in all cylinders save the one being tested, the compression can easily be determined and it is evident that a badly scored cylinder will not show very much compression unless doped up with a heavy oil or dope especially prepared for the purpose. A quick test will, however, detect this, owing to the wet sound of the suction as the piston is rapidly worked up and down in the cylinder.

Despite the experience of the buyer, it will not be an easy matter for him to determine the condition of a rebuilt motor until he has used it for a week or two in his boat, and no one is going to give him the use of the motor until it is paid for. He can, of course, determine whether or not the bearings are

(Continued on page 144)

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- Lesson No. 4—Types and Uses of Buoys, Various Types of Sailing Vessels
- Lesson No. 5—Equipment—The Legal Requirements for All Classes of Boats—Government Publications
- Lesson No. 6—The Compass
- Lesson No. 7—Compass Errors and How to Apply Them
- Lesson No. 8—Reading and Interpreting the Chart, How Charts are Made and What to Look for On Them—Meaning of the Symbols and Marks
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- Chart No. 8—Delaware River and Bay
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- Chart No. 15—Hudson River, New York to Kingston
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- Chart No. 18—Massachusetts Coast, Scituate to Newburyport
- Chart No. 19—Massachusetts Coast, Newburyport to Cape Elizabeth
- Chart No. 20—Cape Cod Bay, Massachusetts
- Chart No. 21—Coast of Maine, Monhegan to Isle au Haut
- Chart No. 22—Chesapeake Bay, Cove Point to Smith Point—Part 3
- Chart No. 23—Biscayne Bay, Florida
- Chart No. 24—Thousand Islands, Wolfe to Grenadier Island
- Chart No. 25—Delaware River, Trenton to Philadelphia
- Chart No. 26—Delaware River, Philadelphia to Smyrna
- Chart No. 27—New Jersey Coast, Cape May to Little Egg Inlet
- Chart No. 28—New Jersey Coast, Little Egg Inlet to Bayhead
- Chart No. 29—New Jersey Coast, Bayhead to New York Harbor
- Chart No. 30—Chesapeake Bay, Smith Point to Cape Charles
- Chart No. 31—Potomac River, Entrance to Lower Cedar Point
- Chart No. 32—York and James Rivers
- Chart No. 33—Delaware Coast, Cape Henlopen to Chincoteague Inlet
- Chart No. 34—Virginia Coast, Chincoteague Inlet to Cape Charles
- Chart No. 35—Virginia Coast, Cape Henry to Albemarle Sound
- Chart No. 36—Albemarle Sound, North Carolina
- Chart No. 37—Famlico Sound, North Carolina
- Chart No. 38—North Carolina Coast, Core Sound to New River Inlet
- Chart No. 39—Carolina Coast, From Cape Fear to Winyah Bay
- Chart No. 40—South Carolina Coast, From Winyah Bay to St. Helena Sound.

- Chart No. 41—Georgia Coast, From St. Helena to Deboy Sound
- Chart No. 42—Lake Michigan, Southern Part
- Chart No. 43—Lake Michigan, Northern Part
- Chart No. 44—Lakes Michigan and Huron
- Chart No. 45—Lake Huron
- Chart No. 46—Coast of Georgia
- Chart No. 47—Florida Coast
- Chart No. 48—Florida—Cape Canaveral to Miami
- Chart No. 49—Lake Ontario, Western Part
- Chart No. 50—Lake Ontario, Eastern Part
- Chart No. 51—Nantucket Sound
- Chart No. 52—Long Island Sound, Oyster and Huntington Bays
- Chart No. 53—New York to Boston
- Chart No. 54—Boston to Eastport
- Chart No. 55—Trent Waterway, Ontario
- Chart No. 56—Connecticut River

THE most suitable courses from all principal ports and harbors are given on these charts, as well as magnetic courses and bearings, distances in statute miles, all principal lights, buoys, etc. All charts are drawn to scale. They have proven invaluable to motor boatmen while cruising or planning a cruise.

Much other cruising data is given in the book, such as where to purchase the various government charts and publications, notes on how to use charts, the characteristics of lights and other major aids to navigation, information as to fuel and supply stations, etc.

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- Cruise No. 1—New York to Albany
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- Cruise No. 5—New York to Philadelphia
- Cruise No. 6—Buffalo to Detroit
- Cruise No. 7—New York to Florida
- Cruise No. 8—Miami, Florida, to New Orleans
- Cruise No. 9—New York to Boston
- Cruise No. 9A—New York to Boston
- Cruise No. 10—Boston to Eastport, Maine
- Cruise No. 11—Trent Valley Waterway
- Cruise No. 12—Connecticut River

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On Buying a Used Engine

(Continued from page 142)

loose by attempting to lift the shaft while the engine is held firmly in place, this determining what play, if any, exists in the main bearings. Play in the connecting rod bearing is also evident by the clatter as the engine is turned over or rocked by hand.

The writer is thoroughly familiar with the various methods of determining the condition of a motor; nevertheless, he once purchased a second-hand boat with motor installed. Being connected with what is probably the largest rebuilder of marine motors in the world, he felt he knew something about what he was buying. He very carefully looked the engine over and the end purchased the entire outfit at a low price from a well-known and not extremely reliable individual. He found out a great deal more about it after using it than his examination brought to light. After the expenditure of quite a little money and time he had quite a satisfactory boat, but the man from whom he purchased it never saw fit to make good to him any portion of his time or expense or to do any of this for himself, although the boat was sold with a guarantee.

The writer then decided that he would never again buy a piece of second-hand machinery except from some first-class concern, who were known to be upright and reliable. He then thought of no better advice to the buyer of a rebuilt marine motor than to urge him to buy from a reputable house, which would give him a reasonable guarantee and which has a reputation standing behind its guarantee and for treating customers fairly. It is important that the buyer should know who rebuilt the motor—if the engine was rebuilt by the manufacturer and the manufacturer was a reputable and going concern, he should have every reason for having confidence in the machine. If the engine has been rebuilt by the firm from whom he is making purchase, and if this firm is reputable and reliable and gives a guarantee the motor, he should have still further cause for confidence in the purchase.

There are some who make a business of selling rebuilt motors but who do not rebuild them themselves, and who do not always know where they have been rebuilt. Some of these men are honest and well intentioned, but they do not know the exact condition of the machine themselves and have no responsible manufacturer who has done the work to whom they can refer. If the machine proves defective and the buyer makes a complaint, the complaint will in turn be referred to the shop or mechanic who did the work, and as this shop or mechanic is not desirous of doing the work over again without pay, he is inclined to reply that the complaint is an unjust one and that the engine was really in the very best of condition. The buyer in consequence will have considerable difficulty in getting any satisfaction even though the man who has sold him the machine may intend to be fair. The seller only knows what he is told by his mechanics and his mechanic leads him to believe that the buyer's complaint is unreasonable and unjust.

In view of the difference in price between the price of a rebuilt motor and the price of a new one, it is easily seen that the rebuilt engine is well worth considering for the man who has not a large sum of money to invest. The well-to-do yachtman will naturally prefer a new machine and will care very little what it costs him if it meets his requirements. The writer has, however, had the pleasure of selling several large rebuilt motors of leading makes to wealthy yachtsmen who have been much pleased with them.

The writer has, in the foregoing, discussed principally the mechanical details and the matter of business judgment to be considered in the purchase of a rebuilt machine. Under the second heading he might add that there is an especially desirable time to buy rebuilt machines. During the early fall and winter dealers in rebuilt motors are apt to find themselves heavily stocked, with a comparatively small market, and with the prospect of needing more space for machines to be taken in during the show season and before. For this reason prices on rebuilt machines are lower in the early fall and winter. During the spring and summer, the demand is heavier and the stock comparatively light, although during the fall, there is usually an opportunity to take advantage of special sales. Many buyers seem to anticipate that the latter part of the winter is an exceptionally desirable time to purchase. While it is true the prices will range somewhat lower then than they will during the spring months, it is also true that during the middle and latter part of the winter the southern buying season is at its height, and under normal conditions, certain export trade is extremely active. The buyer, therefore, who is seeking an exceptional bargain will do well to look for it between the first of October and the first of March.

Outboard MOTOR BOATING



The Magazine for Outboard Yachtsmen

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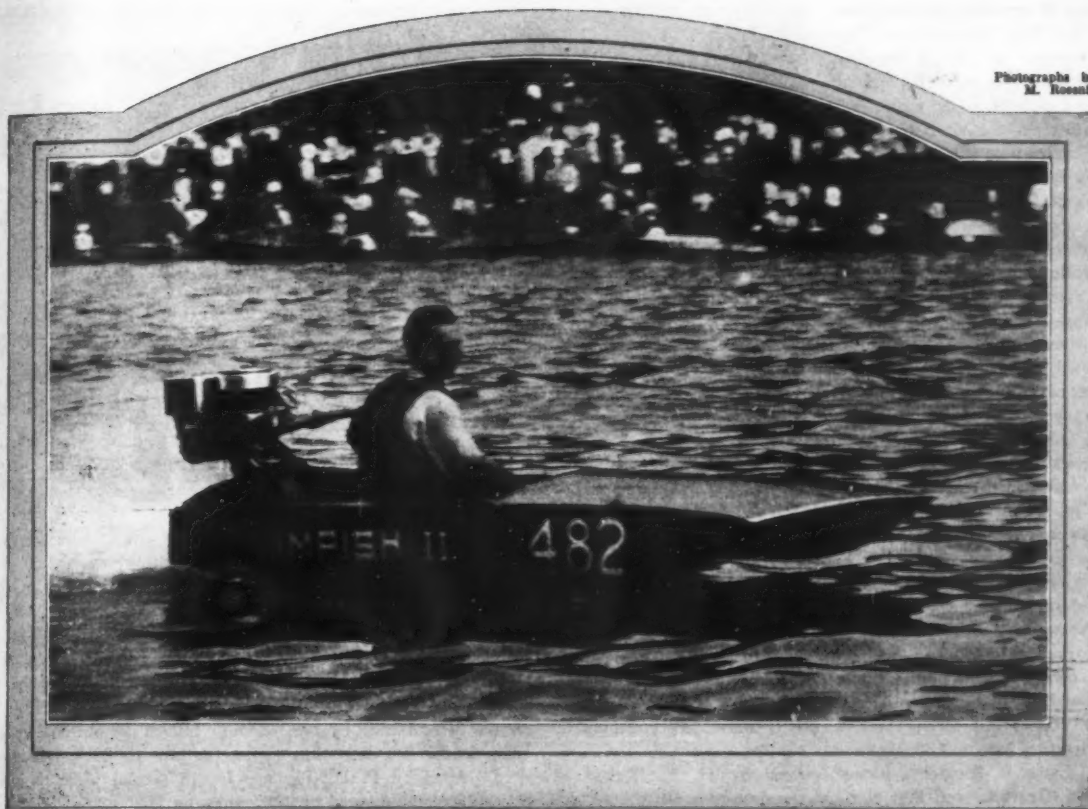
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Photographs by
M. Rosenfeld



Impish II, the Evinrude powered Hooton plane that took first place in the Class C Amateur and Free-for-All, Class D Free-for-All events and won the Sir Thomas Lipton Trophy in the unlimited class

Philadelphia Now Sets *American Records*

*Outboard Races on the Schuylkill River Attract
Hundreds of Entries and Thousands of Spectators*

PHILADELPHIA is the latest convert to outboard racing. Strangely enough, this city, one of the slowest to become enthused over this new national sport, has about the finest body of water in the country for outboard competition. This is on the Fairmont Park Basin of the Schuylkill river, an entirely land locked body of water on which there is little current and

winds are not a factor. Here it is that the national championship rowing regattas are decided each year and where many college crews train for their intercollegiate contests.

Under the leadership of David S. Bechtel, J. A. Towers, Dr. D. D. Gray and William Freitag, the Philadelphia Outboard Association was organized and affiliated with the American Power

Boat Association. This Association planned and handled the regatta and were able to obtain permission for outboards to run on the river from the city fathers of Philadelphia. This is the first time that such permission had been granted.

Classes were scheduled for



Century Cyclone, a Century built Johnson powered craft driven by Malcom Pope

Class B Amateur, Class B Free for All, Class C Amateur, Class C Free for All, Class D Amateur, Class D Free for All, and an unlimited Free for All. Each race, except the unlimited class, consisted of two heats of four miles each. The unlimited class race was 6 miles in length and was for a perpetual trophy presented by Sir Thomas Lipton.

While the banks of the Schuylkill around the course have been famous for many years for giving thousands of spectators interested in national rowing races a chance to get a close-up of the crews yet it is doubtful whether these banks ever were so crowded with spectators as they were for this outboard event. The course, one mile between single turning buoys at each end, or 2 statute miles around, was laid out between surveyed range posts on shore, used by the rowing crews, thus assuring the accuracy of the course. The banks around this course were literally black with crowds of people and thousands of parked automobiles. An estimate of the number of persons who occupied points of vantage would run close to a hundred thousand.

All classes filled well, some twenty B and C craft coming to the starting line for each class.

In Class B Amateur, Fidget, owned by H. E. Becker of Darien, Georgia, took first place in the first heat. In the second heat Skeeter, owned by F. M. Foster, came in nine seconds ahead of Fidget. However, Skeeter finished in third position in the first heat with the result that first place for the entire race went to Fidget on points. Fidget's fastest speed for a four mile heat was at the rate of 28.57 miles per hour. Twelve boats finished this event, the competition being especially keen between the first six boats.

In Class B Free for All, Fidget, owned by H. E. Becker, took the first heat at a speed of 28.80 miles an hour, but as this boat turned over in the second heat, sixth position was the best he could win in the final scoring. Rubber Baby, owned and driven by Julius Herbst of Wilmington, North Carolina, finished second in both the first and second heats. Skeeter, also a Herbst boat, took third in the first heat and first in the second heat, giving her first place for the race. In this event Fidget's speed of 28.80



The Committee at the Philadelphia outboard races

miles an hour sets up a new American outboard record for four miles Class B Free for All.

When Class C was called some twenty-three boats eligible for this class lined up for the start. Baby Whale, owned by J. Allen, succeeded in winning first place in the first heat, but Impish II, owned by C. Allen, beat his brother to the finish line in the second heat by one second. Impish II finished in sixth place in the first heat thus giving the race to Baby Whale with Pep, owned by P. D. Thropp, Jr., in second place on points. In this event the speed of 32.07 miles an hour established by Impish II is a new four mile American outboard record for Class C Amateur.

The two heats of Class C Free for All attracted nearly all the Amateur Class C entrants as well as a number of contestants who were not eligible for the Amateur Division. In both four mile heats of this race, Impish II, owned by C. Allen, came in first giving her first place in the race, with Miss Ricochet, owned by D. C. Fonda, finishing in second place in both heats. Wild Cat, owned by Crane & Lockhart, finished in third place with one sixth and one fourth to her credit. Century Cyclone, driven by Malcolm Pope, got away to a poor start in the first heat. Consequently, eighth place in this heat was the best he could win. However, Mr. Pope drove his Century Cyclone much better in the second heat and finished in third position. The speed of Impish II of (Continued on page 168)



Miss Ricochet, owned by D. C. Fonda, winner of the four-mile Class D amateur event. A new American outboard record was established by this boat

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In America In England In Belgium



Mr. Zentgraf with Duchess of York Trophy won by Evinrude.

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In America, England, Belgium it's the same story—Evinrude wins—leads motors of any horsepower rating and of any number of cylinders. An Evinrude Speeditwin captured the Dutchess of York English Championship Trophy for Class C Motors at Welsh Harp, Hendon, July 14. Other Speeditwins came second, third and fourth in a field of 20 starters. Speeditwin also won the King of the Belgians Championship Trophy at Ostend, August 6.

Add to these: First, second, third in New York to Red Bank race, July 28; winner, Class C, Paw Paw, Mich., regatta, July 29; first, second, third, Class C, Long Beach, Calif., Aug. 4; first, second, third in 14 mile race around Alameda, Calif., Aug. 5; first, second, third, fourth, fifth at Madison, Wis., Aug. 5; the American official speed record of 38.436 m. p. h.; and three firsts in Class C and two firsts in Class C Free-for-All in the five mile heats of the Harmsworth Trophy regatta at Detroit, Sept. 1-3.

The Evinrude line is complete—2 to 16 H. P.—speed range, 3 to 40 m. p. h. Full ball and roller bearing equipment in Speeditwin and Fastwin—crank shafts, connecting rods, drive and propeller shafts. Ball and roller bearings on drive and propeller shafts in Fleetwin. Write for Evinrude Year Book giving complete information.

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Fire Cracker—Evinrude powered Class C winner of Northwest Regatta Seattle, July 7-8.



Evinrude powered Flash, second in Duchess of York Trophy race.



Fairchild Aero with Speeditwin—the combination that led the field from Albany to New York—133 miles in 4 hours, 33 1/2 minutes.



Flying Scotchman—with Speeditwin holder of official American record for 10 miles—34.81 m. p. h.



Miss Helen Hentschel—Premier woman race driver in Evinrude powered Curtis hydroplane.



H. E. Richardson, racing enthusiast of Chicago with his Evinrude Speeditwin.

Again

BREITFORD, ENGLAND
JULY 17, 1928
EVINRUDE MOTOR CO.,
MILWAUKEE WIS.
EVINRUDE SPEEDITWIN WINS DUTCHESS OF YORK OUTBOARD MOTOR BOAT TROPHY THE NATIONAL CHAMPIONSHIP FOR CLASS C MOTORS MR. HENDON SEVEN TIMES FIRST MR. GEORGE CLASS FLASH 111 SECOND EVINRUDES FINISHED FIRST SECOND THIRD FOURTH TWENTY STARTERS RACE AT WELSH HARP HENDON JULY FOURTEENTH.

Again

CABLE BREITFORD ENGLAND
AUGUST 6, 1928
EVINRUDE MOTOR COMPANY
MILWAUKEE WISCONSIN
JUST WON OUTBOARD CHAMPIONSHIP KING OF BELGIANS CUP

Again

NEW YORK
JULY 20, 1928
EVINRUDE MOTOR CO.,
MILWAUKEE WIS.
NEW YORK TO RED BANK RACE SATURDAY 20th STOP THIRTY BOATS STARTED ELEVEN FINISHED STOP FIRST KURT SCHMIDT STOP SECOND F. D. SMITH STOP THIRD ADOLPH SCHMIDT STOP FOURTH KURT SCHMIDT STOP FIFTH AN SCHMIDT ALL EVINRUDE POWERED KURT SCHMIDT WON AN EVINRUDE FOR NEW YORK STATE CHAMPIONSHIP A WEEK AGO

Again

WATERVILLE, MICHIGAN
JULY 20, 1928
EVINRUDE MOTOR CO.,
MILWAUKEE WIS.
BART WHALE DRIVER BY WALTER RICE WITH EVINRUDE SPEEDITWIN TAKES ALL CLASS C STEVES AGAINST COMPETITION WITH 16 ENTRIES AT PEARL LAKE REGATTA JULY 20th WITNESSED BY THOUSANDS OF PEOPLE

Again

OAKLAND, CALIF.
AUGUST 9, 1928
EVINRUDE MOTOR CO.,
MILWAUKEE WIS.
EVINRUDE WON FIRST SECOND THIRD IN CLASS C RACES AT LONG BEACH LAST SATURDAY AND SUNDAY EVINRUDE SPEEDITWIN WON FIRST SECOND THIRD IN THE 14 MILE RACE AROUND ALAMEDA, CALIF. FOR FIRST BOAT TWENTY EIGHT MINUTES FIVE SECONDS

Again

BROOKLYN, NEW YORK
JULY 30, 1928
EVINRUDE MOTOR CO.,
MILWAUKEE WIS.
A NEW STOCK MODEL EVINRUDE SPEEDITWIN WITH MUFFLER ON DRIVE ON OUR SEA GULL RACING BOAT WHO-TEE TOOK FIRST PLACE PRIZE IN THE 52 MILE MARATHON SWIMMING FROM THE BATTERY IN NEW YORK CITY TO RED BANK NEW JERSEY MOTOR RACE PERFECT DRIVING OUTRACE NOW STOP CLASPED TIME ONE HOUR TEN MINUTES TWENTY TWO SECONDS EVINRUDES ALSO SECOND AND THIRD

Again

MADISON, WISCONSIN
AUGUST 5, 1928
EVINRUDE MOTOR CO.,
MILWAUKEE WISCONSIN
ALONG PARLOR WITH EVINRUDE SPEEDITWIN EQUIPPED EVINRUDE SPEEDITWIN WINS BOTH CLASS C RACES HERE SUNDAY IN CLASS TO SECOND TIME THIRTY SEVEN MIDWEST CHAMPIONSHIP EVINRUDES ALSO SECOND THIRD FIRST CHAMPIONSHIP PLACES STOP WOMAN PART IN EVINRUDE AND FIFTH PLACES STOP STEVEN WINN FREE FOR EVINRUDE SPEEDITWIN DEFEATED MANY CLASS C AND D COMING ALL CHAMPIONSHIP EVINRUDE WINS DISPLACEMENT EVINRUDE WINS ALBERT RICHARDSON GIVES DISPLACEMENT EVINRUDE WINS SPEEDITWIN REGATTA WITNESSED BY THOUSANDS FELTONS SPORTING GOODS

American Engines Do Strange Tasks

*Outboard Motors
in The Proas,
The Gondolas,
and The Sampans
of The Orient
Serve Many Masters*

By
Clarence E. Bosworth

Illustrations by
E. J. Geske



A jolly Alute, with motor put-putting away at the end of a pole swung from stem to stern, drove his bounding kayak almost to the steamer's side

WHILE Americans split hairs over whether the motor installed shall be high speed, medium duty or heavy duty, and while authorities argue for hours over whether the pitch of the screw shall be a half-inch greater, one way or the other, less particular people in other parts of the world, grab almost anything in the way of American motors; put them into the most impossible kinds of boats; and get most effective and satisfying kicks out of them.

Shrieks of laughter went up from the deck of one of

the trans-Pacific liners last summer when skirting the Aleutian Islands, and cries of "Wither away, Skipper" and similar bandinage, were shouted by the passengers at a jolly little Alute who drove his bounding kayak almost to the steamer's side. A broad grin covered his face; he waved his arms and paddle in ecstatic delight; and yelled back a steady flow of totally incomprehensible gibberish so foreign to mainlanders' ears that it sounded hardly like a language.

But, he had the evidence.

Put-putting away at the end of a pole swung from stem to stern, was a familiar American out-board motor and our Aleutian friend didn't seem to care whether his course was north or south, so thrilled was he with the exhilaration of speed, the excitement of his own bravado and the novelty of being the cynosure of so many foreign eyes.

After the ship passed, he cut a wide circle northward and the last seen of him was in the form of a tiny, triumphant speck at the edge of the horizon. The kayak showed no signs of capacity for carrying any extra gasoline



Imagine the disappointment of the honeymooners when they found a husky out-board motor fastened to the stern of the Sampan

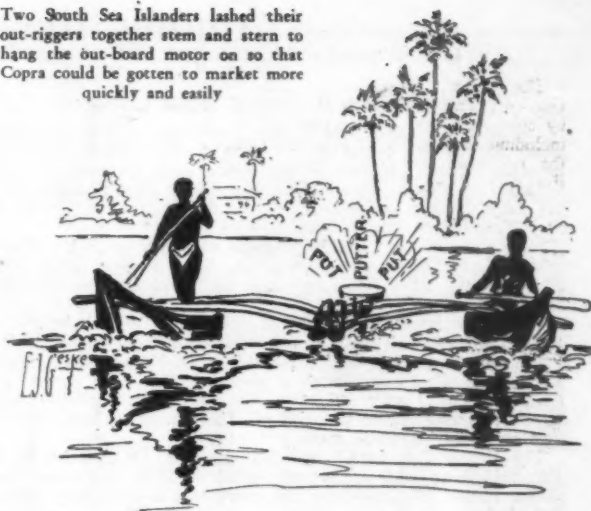
supply so passengers and crew decided that this bold, boastful mariner had paddled his little craft southward until he cranked up just as the ship came in sight to give the foreigners on it a special treat.

Where this fellow got his motor and where he got his gasoline, can only be guessed at but, to him, it must have represented wealth enough to exchange for all the land from Alaska to Kamchatka. Speculation advanced the theory that he had probably traded skins with venturesome sailors from some vessel who could have, had they cared to, told their skipper a probable tale of having lost the motor overboard.

Also, it may be noted, this little seal-skin craft shot over the water like a skittering arrow. Time trials were not in order at the moment but speed-boat builders for out-board motors, might do well to investigate. What a sensation this fellow would make in the out-board races of the Palm Beach Regatta!

A few seasons ago, two Kanaka boys hitched their dugouts together, hung an out-board motor on the after cross-pole and put-putted to the outer harbor in

Two South Sea Islanders lashed their out-riggers together stem and stern to hang the out-board motor on so that Copra could be gotten to market more quickly and easily



With all sails set for a following wind, but headed directly into it, the Junk came steadily on to cut across the steamer's bow and throw off the evil spirits

a vain effort to induce passengers to throw coins overboard before the ship reached the dock where a swarm of Hawaiian divers always await the largess of patrons of diving. The effort was a failure however, because the catamaran either smacked too much of commercial greed or the novelty of the craft distracted the attention of passengers from the idea of throwing coins. When the next ship arrived, these two boys were back in their usual places, diving with the rest of the crowd and bailing water from their dugouts with a few deft slips of their feet.

Over in Tokyo, a particularly enterprising sampan coolie was engaged by an American to take himself and his bride for a sight seeing trip up the Sumida Gawa. Such a trip gave promise of honey-moon privacy and the tranquility of romance afloat, for the Japanese coolie, swinging at his sweep, is quite as picturesque as any gondolier on the Grand Canal.

The coolie assured his customers that he would be ready immediately after "runch" (lunch) and seemed

particularly satisfied with a certain superiority over his competitors. He bowed his full understanding of the bargain as he kept repeating, "Americajin evaw hyaku." (Americans are always in a hurry.) Imagine the disappointment of the honey-mooners when they returned to find a big, husky, outboard motor fastened to the stern of the sampan. However, they appreciated the attempt to deliver special service and they took the trip.

Along the China Coast, the marine motor has worked wonders. Sometimes it supplies comedy enough to compensate for the despoiling of the picturesqueness of Chinese craft. Is there a funnier anachronism than a high-sterned, Chinese junk, held somewhat to its course by a wooden compass, lumbering along the coast of far Cathay under the propulsion of a modern motor and looking ahead with its great carved eyes?

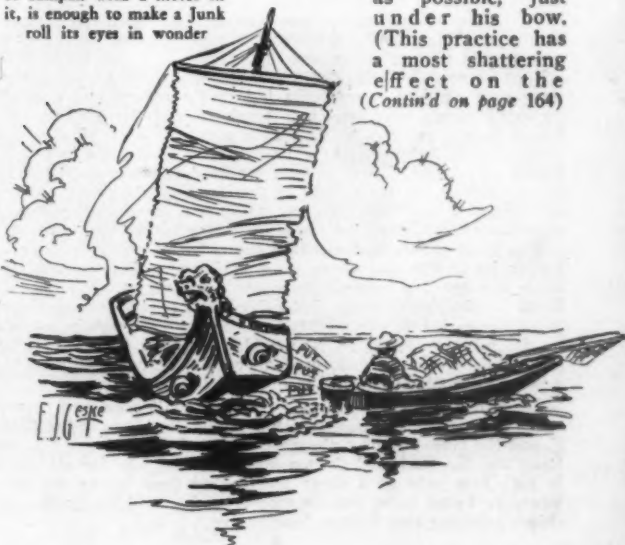
Oh, yes. The Chinese skipper has his power plant, but he also holds fast to that which is good, and keeps the eyes of his ship bright for, he says of his craft, "No have eyes: no can see. No can see: how can walkee?" Good argument and simple enough.

At the mouth of the West River, out in the broad bay just off Macao, the English captain of a Hong Kong-Canton boat saw a Chinese junk coming toward him and making the usual

attempt to cut across, as closely as possible, just under his bow. (This practice has a most shattering effect on the

(Contin'd on page 164)

A Sampan with a motor in it, is enough to make a Junk roll its eyes in wonder



Among the Yacht Clubs

Silver Beach Motor Boat Club

The outboard races held a short time ago at Silver Beach Gardens, Throggs Neck, N. Y. were distinguished principally by some rather handsome prizes. There were six events in all including Classes B, C, and D; and a Grand Free-For-All. All the races were 6 miles over a one mile course. The Grand Free-For-All was a twelve mile feature.

First place in the Class B Amateur was won by T. De Wulf of Whitestone, L. I., in his Vic-O-26. This winning netted him one barometer. De Wulf also took the Class B Free-For-All, adding a silver cup to his booty.

The other events were won as follows: Class C Amateur, P. G. Thebaudt with a speed of 30.68 m.p.h.; Free-for-All, O. B. Lorre with a speed of 25.7 m.p.h. Class D, Free-for-All, Chas. Kirstein of Eastchester with a speed of 25.2. The speeds in Classes C and D were rather low but the course conditions may have had something to do with it. There were at least twelve turn-overs during these races.

The Grand Free-for-All was won by Geo. De Angelus in a Fairchild Aero with an average speed of 28.44 m.p.h. for the twelve miles. The prize for this event was a Waterbury ship's bell clock.



Jonah, an airplane type control outboard driven by young Rupert Turnbull. Steering is done entirely by the feet

Outboard Regatta at Herald Harbor, Maryland

THE Chesapeake and Potomac Outboard Motor Association, of Washington, D. C., held its first annual speed boat regatta on Labor Day, at Herald Harbor, Maryland. The meet was known as the Tri-City Motor Boat Races, and was sponsored by the Washington Herald. One hundred and thirty-eight boats were entered from Washington, Baltimore and Annapolis and other places in the Chesapeake Bay section and forty-one trophies were awarded winners of the various events.

The races were run under the rules of the American Power Boat Association and there were several American Power Boat officials on hand to take care of the judging, scoring and other official details. No speed records were established but it is the belief of the officers of the association, that staged the regatta, that a new high pitch enthusiasm record was set by the contestants and those who arranged the affair.

The Chesapeake and Potomac Outboard Motor Association was organized just four weeks before the regatta, by a small group of motor boat fans new to the racing game. The outboard dealers were called together, as were some of the men who so successfully staged the President's Cup Regatta in Washington a year ago. These fellows rendered valuable assistance to those working out the details of the Tri-City Races and in less than four weeks' time one of the most successful outboard regattas ever staged in the Chesapeake Bay section was a reality.

The most patient and constant supporter of the new association in its efforts was Commodore William A. Rogers, who has made a name for himself in motor boat circles. Bill Rogers acted as chairman of the judges' committee and accomplished many things before the regatta that seemed well-nigh impossible to the regatta committee. Commodore Conrad C. Smith acted as official starter and presented a very handsome trophy to the winner of the ladies' surf board race.

Ed. Baltz, of the Corinthian Yacht Club of Washington, copped two of the principal trophies of the day, taking firsts in the Class C and the free for all outboard events and finished third in the Bang and Go Back and the ten mile outboard free for all. This is Ed's first year as a racer and he has been taking his cups where he found them, but his success at the Tri-City Races outshines anything that he has done so far.

Killdeer Island Boat Club

Commodores J. D. Hess, Jr., and Alfred H. Wagg who have long been prominent in yachting affairs in Palm Beach, Florida, have, during the summer, transferred their business and motor boating activities to northern climes. They have started a new motor boating organization, the Killdeer Island Boat and Canoe Club at Webster, Massachusetts, with 30 charter members and a long list of others waiting to come in at the next meeting. The club made its formal debut with an outboard regatta of nine events for Classes B, C and D motors on Labor Day.

Margate Speed Boat Association

Under the sanction of the A. P. B. A. the newly organized Margate-Longport Speed Boat Association ran off its first regatta at Margate City, N. J., with great success. The event was characterized by races for both inboard and outboard motored boat and was attended by a considerable throng of spectators.

The Free-for-All inboard displacement boat feature was captured by Red Skin, a fast boat owned by Edson Hedges of Maple Landing and Atlantic City, N. J.

Although more speed was shown by the larger boats the general attention was centered more on the outboards, as has been the case in the majority of this year's regattas. The outboard events included the usual Class A, B, and C, and Free-for-All. The Grand Free-for-All was won by a Baby Whale owned by H. E. Becker of Darien, Ga., with a time of 9.01 over the six-mile course.

The Margate Association intends to make this regatta an annual feature and is already working on an ambitious program for 1929.



Transporting two of the four Turnbull family outboard boats to the scene of a regatta

Racing at Winnepesaukee

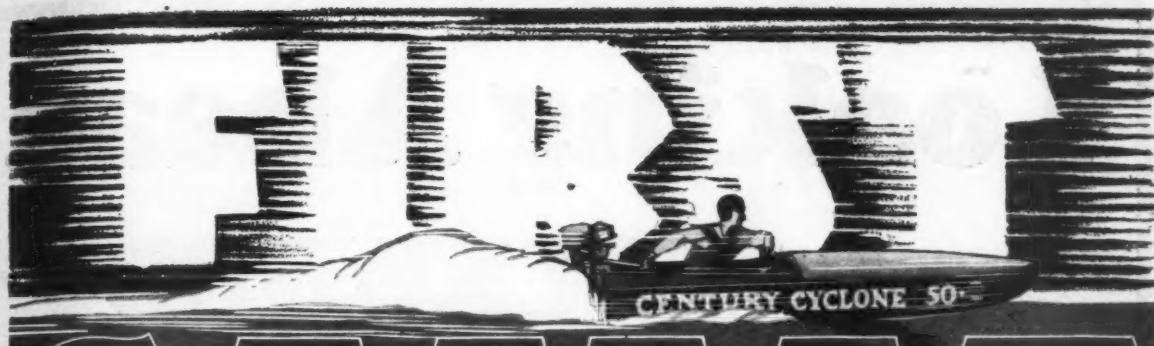
Before an immense crowd, significant of the tremendous popular interest in outboard racing all over the country, Wolfeboro, N. H., sponsored one of the most interesting motor boat events in the history of New England on Lake Winnepesaukee on Sept. 1st.

The race, a 47-mile marathon, started at Wolfeboro Bay and finished at Wolfeboro. Of the thirty-two entries, but seventeen started and only six finished. The victor was Elbridge M. Robie, of Wolfeboro, piloting a Pigeon boat powered with an Elto Hi-Speed Quad, and he covered the course in one hour, twenty-nine minutes and twenty-three seconds, leading his nearest competitor by five minutes.

Missouri River Wins Outboard Race

Sounds funny but it's true. At the recent regatta held on the Missouri River at Nebraska City the committee started at the beginning as one should and began the festivities with a Class A race for outboards. The contestants tore out into the stream. At the last gun they all managed to get to the starting line but that was as far as they got. They bucked the stiff current for almost five minutes and didn't move an inch. So the committee which had been hanging over the rail, convulsed, straightened up and called off the event.

The other Classes went along better, however, and the report is that the regatta was an entire success. Two boats from Spirit Lake, Iowa, won most of the honors: Miss Spirit Lake Baby winning three firsts, and Little Chief winning one first and three seconds. Both boats were owned and built by John Hefer of Spirit Lake. In the Class B race Little Chief finished nearly a mile ahead of the other contestants. Just what happened to the other boats, we haven't heard.



CAILLE

"NEW Model 30"

**Makes Clean Sweep of
all "CLASS B" Events at
HARMSWORTH REGATTA
AND
MID-EAST REGATTA**



Genevieve Atwood



Wade Hoffman

TWO of America's foremost water events—the Harmsworth Regatta in Detroit, and the Mid-East Regatta at Marietta, Ohio—added new laurels to the wonderful achievements of the Caille "New Model 30."

All "Class B" events in both Regattas were completely swept by Caille. And new world's records were established.

At Detroit—Genevieve Atwood, driving a Caille "New Model 30" won the "Class B" Free-for-All against the pick of the country's best known motors and pilots. And then proceeded to set a new world's "Class B" record over a 6-mile course, against the most adverse weather con-

ditions! Wade Hoffman, driving a Caille "New Model 30," left all competition behind in the "Class B" Amateur, winning this event with comparative ease!

At Marietta—Genevieve Atwood, driving a Caille "New Model 30," set new world's records in winning the 3-mile Competition—the 6-mile Amateur Time Trials—and the 6-mile Amateur Competition!

In every section of the country, the Caille "New Model 30" is winning—winning races—winning friends—winning ever-growing popularity! It's the motor everyone is praising—the motor that you should own!

CAILLE MOTOR COMPANY
6210 SECOND BOULEVARD DETROIT, MICHIGAN

Mention OUTBOARD MOTOR BOATING, 57th St. at Eighth Ave., New York

Looking Ahead

with LOCKWOOD

NEXT year, Lockwood expects to be "Again a Year Ahead." New things are in the making. Disclosure of any part of Lockwood's program for 1929 would be premature at this time. But those who know Lockwood and Lockwood Motors can look confidently to the future with this aggressive and growing organization.

Lockwood Motors today are accepted as the highest examples of Engineering and Production Skill in the industry. Their Performance has made this acceptance World-wide. It is gratifying.

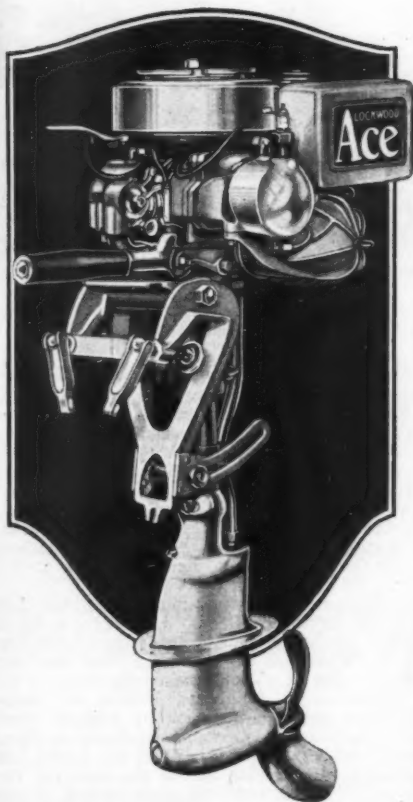
In 30 to 60 days territorial allotments for 1929 will be acceptable. Those tradesmen who have successfully sold Lockwoods this year may look forward to even more close, friendly, and profitable relations next. Others, who may be entering this field for the first time, or who may consider a change to the Lockwood Line should open advance negotiations NOW.

Lockwood Motor Co.
81 South Jackson Street
Jackson, Mich.



Chas. Hall, Jr., of New Bern, North Carolina, who set a new American Record Class B Amateur for 4 miles, August 6, 1928, at New Bern, North Carolina, at 33.065 miles per hour.

Boat, "Meadows Flyer"
Motor, "Lockwood Chief."



LOCKWOOD
Chief

American Records

Class B..Free-for-all..Time Trials..	35.66	mph
Class B..Free-for-all..2 miles	30.901	mph
Class B..Amateur ..2 miles	30.638	mph
Class B..Amateur ..Time Trials..	29.709	mph
Class B..Amateur ..6 miles	29.268	mph
Class B..Amateur ..3 miles	29.590	mph
Class B..Free-for-all..3 miles	28.420	mph
Class B..Amateur ..4 miles	33.070	mph

Write for Free Catalog

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McQUILLIN, LTD.,

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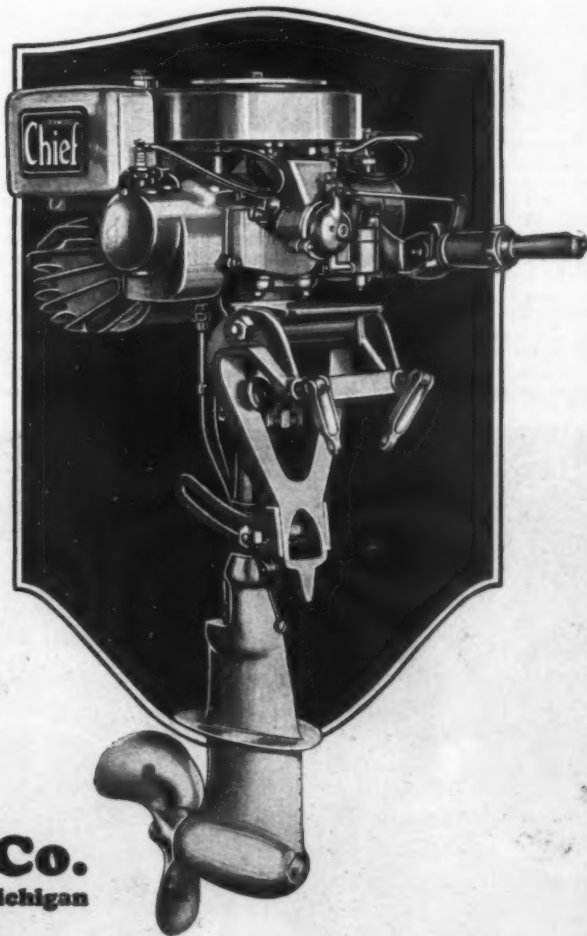
LOCKWOOD
Ace

American Records

Class A..Free-for-all..2 miles	23.841	mph
Class A..Amateur ..2 miles	24.00	mph
Unbeaten..Time Trials..Nov. 14, 1928..	27.163	mph

Going Hunting?

The Lockwood ACE for your smaller boat—theCHIEF, if your craft is large, will double the enjoyment of that late vacation, or the hunting trip. Write for Catalog and name of nearest dealer.



Outboard Notes

A New Outboard Tachometer

The tremendous increase in the use of outboard engines and the faster speeds that are daily being made has led to a demand for a device that will indicate the operating speed of the engine, and serve both as a check on boat speed and as a means of obtaining the best engine setting.

To meet this, the AC Spark Plug Company has placed on the market an outboard tachometer designed to fulfill the needs of the average outboard driver as well as the racer. The tachometer head is of the magnetic type, compensated for temperature changes. Sudden acceleration on a racing engine due to propeller cavitation cannot damage it. A polished bracket is supplied so that the head may be mounted in any desired location.

The tachometer is driven from the flywheel drive, a sturdy unit with over-size spiral gears; the main drive gear runs in an oil-less bushing; the tachometer gear turning at only half engine speed, runs in a burnished, die-cast housing. An oil cup is provided for lubrication. The drive is adaptable to any outboard engine, and may be put on or removed while the engine is in operation. Twelve feet of flexible cable are furnished so that the tachometer head may be mounted at the end of the deck, directly in front of the driver, and the shaft run along the bottom of the boat out of the way.

All parts are beautifully finished and are protected against corrosion.

Outboard Records Broken at Detroit

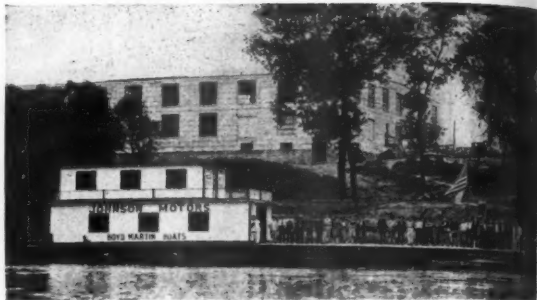
Three new one-mile outboard records were established in the recent Harmsworth Trophy races held at Detroit, Michigan. They were all made on a one nautical mile course in order that the records will be recognized as International as well as American Outboard records. The rules of the International body require that one-mile records be established on a nautical mile course.

In Class C, Free for All, C-U-Later owned by M. Roy Brady of Charlevoix, Michigan, averaged 33.854 statute miles per hour in her six one mile runs. This boat was built by the Brady Boat Company and powered with an Evinrude motor.

In Class D, Free for All, Vreepex, owned by W. B. Schulte and W. M. Fry and driven by that gallant outboard enthusiast William M. Frey, averaged 37.654 statute miles per hour. His boat was built by the Century Boat Company of Milwaukee and powered with an Elto Quad, Class D motor.

In Class E, Free for All, William Dook, driving his outboard runabout Muriel, averaged 25.926 miles per hour with a Johnson Giant Twin motor.

All of the above records, because they were made on a nautical mile course, will be submitted to the European authorities to be certified to as International Records.



The outboard service station of W. O. Lamb at Nashville on the Cumberland River

A Floating Outboard Service Station

Outboarders who have wished for a convenient place to keep their boats will be interested in the novel arrangement Warren O. Lamb, Johnson dealer in Nashville, Tenn., has provided for the use of outboard owners on the Cumberland River. For some time not only owners of outboard boats but owners of craft of all types had complained that there was no place on the river where they might store their boats and motors and where they might beach them. This put Mr. Lamb to thinking, and a floating service station was the result. Outboard owners of Nashville now make Mr. Lamb's station their river headquarters.

With the establishment of this station, Mr. Lamb has provided a real service to the outboard owners in his district which is not only making present owners happy but is attracting many people to the use of the river who otherwise might not have considered using it. The house on the barge is of two stories, with storage room for boats, lockers for motors and personal effects and a large stock of Johnson repair parts and service equipment. A mechanic is always in charge and when an owner wishes to use his boat and motor, attendants get everything ready for him, fill his gas tank, put the boat in the water, attach the motor—and even start it if the owner has trouble!

Bill Doak, Johnson dealer in Detroit, better known as the proprietor of Bill's Boats, has also just completed a novel service station and outboard boat storage house. It has a capacity of some two hundred boats and motors and is equipped with an overhead trolley which takes the boats into their respective stalls.



Interior of the Service Station School conducted by the Johnson Motor Company to train mechanics in the proper servicing of their engines



A Tempest on the Transom

and another one under the bows

SEA WORTHINESS has always been an important factor in boats. And among outboards, it has become more important this year than ever before. This is because the bigger new motors that give tremendous horsepower must have *real boats* to hold them.

No one could ask better proof of Mullins seaworthiness and Mullins speed than the record established in the famous "Outboard Marathon" from Milwaukee to Chicago.

Out of half a hundred starters, six finished. "Lady Sparton", a 16 foot Mullins Seahawk, driven by 15 year old Mary Richardson, won by 28 minutes! Rough going was an actual *advantage* for Mullins! Life boat construction, built-in air chambers, and the now famous "corrugant bottom" are outstanding features of superiority.

By all means have us send you full details in our 1928 "Book of Boats".

MULLINS

MANUFACTURING CORPORATION

277 DEPOT STREET

SALEM, OHIO

Mention OUTBOARD MOTOR BOATING, 57th St. at Eighth Ave., New York

Outboard Notes

Breaks Dover-Calais Channel Record

Cable recently received by the Elto Outboard Motor Company from London contains the information that the Hon. Mrs. Victor Bruce, on September 8th, broke the Dover-Calais channel record of ninety-four minutes by covering the twenty-five miles in fifty-seven minutes. Immediately upon accomplishing this feat, Mrs. Bruce recrossed the channel in fifty minutes. She used an Elto Quad in her record-breaking drive.

Mrs. Bruce has achieved fame in Europe as an automobile race driver and has recently adopted outboard motor racing in her search for new thrills.

International



Mrs. William Wallace, Jr., of Newton and Boston, Massachusetts; Miss Genevieve Atwood of Lakewood, Florida; and Miss Helen Hentschel of New York, three of the women entrants in the outboard motor races during the Newport regatta

Let's Play Fair

The next time one of you outboard speed demons tears through a crowded anchorage wide open, or shoots around a group of bathers, or just misses some fisherman—don't get the idea that everybody is saying, "Look at that baby go! Some speed! Pretty clever driving!"

Because they aren't. They are really wondering how they could shoot you and get away with it.

International



Senator William F. Whitehouse and son, Hugh Whitehouse, of New York and Newport witnessing the annual regatta held in Narragansett Bay

And if you think a little, you will realize why.

No one really appreciates hearing a constant racket like a Mack truck in a brick tunnel. And that's the way a lot of these outboards sound. No one on a yacht enjoys having a skimmer shoot around him fifty times a day disturbing peace and equilibrium. And when it comes to skinning by small boats and folks in the water it's dangerous. Get out in the open with your speed and stay there. You've got more freedom there and besides no one is much interested in your speed. Show it on the race course—that's the proper place for it.

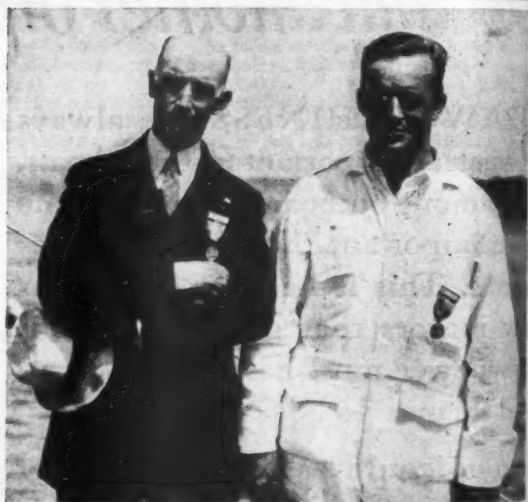
The whole game is going to suffer if some of these hair-brained drivers don't tone down—and keep those mufflers closed—tight.

There are a lot of places today where they are trying to put over stringent legislation to keep speed down—to enforce mufflers, to prosecute those fellows who don't watch out for the rest of us who are in, or on, the water. It's serious and somebody has got to batten the hatch on those birds.

If anti-speed regulations go into effect in a lot of places, they might, you know—it will be ruinous to progress in design. It will do a lot to kill the game. We're just hurting ourselves by not being considerate. It's not hard to be a little careful. Try it.

The outboards are just beginning to show what they can really do now. There have been outboard engines for twenty years but they never amounted to a hoot in Hamburg till racing spurred up the designers and manufacturers. It's speed that put the game on its feet. It's speed and racing that will push it further. But let's not abuse our speed. Let's keep it out in the open water where it belongs. Let's keep the noise down. If we want the good will of the rest of the world—and we can't afford to lose it—we'll have to play fair and recognize the other fellow's rights.

M. Hensfield



Dr. Horace Beck, general chairman, and Frank Wigglesworth, chairman of outboards, at the recent regatta at Newport, Rhode Island

New Outboard Steering Wheel

The greatly increased speed developed by the new high powered outboard motor has resulted in the design by the Johnson Motor Company of an improved steering mechanism to provide adequate control of the direction of the boat. The new Johnson steering wheel may be installed in any convenient place in the boat and provides very simplified steering. It is installed on a low bracket with a flange suitable for attaching it to the floor of the boat, or to a bulkhead or a beam extending across the boat.

The steering wheel is of 16-inch diameter and is highly finished—of polished Lynite with a natural mahogany rim. It is equipped with a pulley to take the cable or rope from the motor, and it has a throttle lever installed on top of the wheel in the same way as an automobile steering gear. After starting the motor you may control the speed entirely from the wheel. Instead of the ordinary push button stop the wheel is provided with a type of switch which, when depressed, remains so. The steering gear is fitted for complete carburetor control.

A NEW HIGH POWERED HIGH SPEED FOUR-CYCLE Outboard Motor



*—Three times
the Horsepower
—with little
more weight—*

Front or
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FIVE CYLINDER RADIAL TYPE

*Embodying the latest and most advanced
ideas in motor construction, and featur-
ing—*

**BALL BEARING CRANK SHAFT
BALL BEARING CONNECTING
RODS**

**FORCE FEED LUBRICATION and
PULLER PROPELLER**

*as well as many other startling
innovations*

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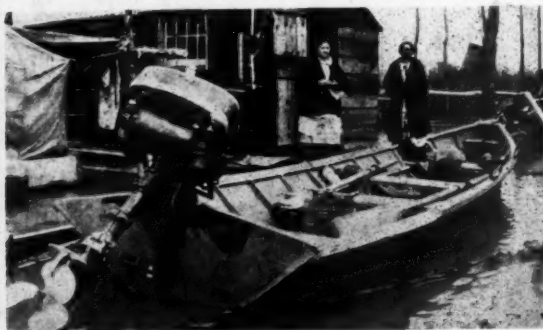


MANUFACTURERS OF THE FAMOUS CROSS PRODUCTS

Outboard Notes

Outboard Motors in Flood Relief

When the Congaree River in South Carolina began to overflow its banks during the third week in August and submerge everything within sight of the normal river bed, farmers unfortunate enough to have their capital tied up in live stock without webbed feet were put to considerable difficulty in instructing their chickens, turkeys, cows and pigs to hire themselves onto high land before the water came. H. T. Patterson, treasurer of the South Carolina State Hospital, was particularly worried about 75 animals he was responsible for, 30 of which were registered Holsteins whose supply of milk is likely to be rather disastrously affected by too severe a case of wet feet.



One of the Johnson powered boats which did effective rescue work, when heavy floods in South Carolina imperilled the lives of many people and cities

Dr. J. C. Gasque, proprietor of Heinitch's Drug store in Columbia felt sure he could solve the problem with the Johnson outboard motors he sells in his store and accordingly on Friday night, August 25, a score of carpenters was rounded up and work started on a barge twenty feet long and seven feet wide. The craft was completed at daybreak Saturday morning and Dr. Gasque arrived on the scene with a Mullins Seahawk powered with a Johnson Standard Twin. He also had with him a new Johnson Giant Twin 25-horsepower motor, the first to be seen in South Carolina. He attached the Giant to the barge and put his 13-year-old son in charge of the Sea Hawk to clear a passage down the river for the barge, and perform various other functions of a generally utilitarian nature. All the bridges had floated to the surface of the water and trees and shrubbery had to be cut away at several places.

Dr. Gasque took charge of the giant-powered barge, and after much coaxing and twisting of tails managed to keep six cows aboard long enough to get them to safety. After this initial experience a second load of six cows was propelled to safety but by this time the water had subsided sufficiently to make it seem advisable to leave the rest of the herd where they were until they could come out under their own cow-power.



Lilith, an 18-foot Johnson powered cruiser in which C. W. Larabee made an 800-mile cruise

On the first trip in the morning, Dr. J. Heyward Gibbs of Columbia who had come out with a small boat powered with a Johnson Light Twin motor to see if he could be of help, salvaged three men and five hounds who were struggling to safety in a cranky little square end batteau over whose sides the water began to lick as soon as a little breeze sprang up. Dr. Gibbs had taken the Light Twin rather than a larger motor, thinking it would perform better through the debris of the flood, so he was doubtful whether it would pull the large boat and heavy

load. "I don't know whether we can make it" he said, "but I suppose we'll have to try." But the little motor came through in fine style and though in one swift current the boat came to a dead stand for a few seconds, she eased out to the side and was then on her way. He then returned to town to get his Standard Twin for the rest of the day's operations.

Later two cows were espied in a water-marooned hayshed. One was on a high floor but the other was standing between two wagons submerged nearly to the heights of the wheels and seemed in considerable distress. Two rabbits and five chickens had also sought refuge in the shed. The cow was pulled up to the higher floor and later in the day, when examined by a physician, was pronounced to be doing nicely. The chickens crying in a manner you hear only when chickens are marooned by the flood waters of the Congaree River were taken aboard more for the purpose of stopping their crying than anything else.

When questioned about the speed of the Giant Twin motor on the barge, Dr. Gasque stated that he could not tell definitely as it was not a sanctioned race and was not officially timed. In fact, no clocking was done at all as no one ventured to take along a watch or any other valuables their potential widows and orphans might have been able to utilize afterwards.

On the preceding Saturday, three Columbians, Alester Watson, dispatcher for the Southern Railway and his two sons, William, 16 and Joe 14, were rescued by Ned Harvin, Commodore of the Columbia Canoe and Boat Club after they had spent all of Friday night and up to three in the afternoon Saturday clinging to trees around which swirling waters raced menacingly.



This Johnson Big Twin is called upon to move a heavy barge on Lake Martin in the work of mosquito control

Mr. Watson and his sons entered the turbulent water in a small boat Friday afternoon about 5 o'clock. Joe had made a trip into the vicinity earlier in the day to rescue three hogs for a neighbor and Mr. Watson, Joe and William were making the second trip in an effort to save a coop of chickens for the same neighbor. Unable to withstand the rushing water, their boat capsized and they were left stranded. The rescuing party, composed of Ned Harvin, A. F. Dent, Frank Gordon and an aged Negro riverman who knows the swamp like a book, and a reporter for the Columbia Record, entered the flooded area in a 16-foot Herbst boat powered with a Johnson Light Twin Motor, shortly after 2 o'clock Saturday and at 3:20, after a hazardous battle with the raging water and swift current, the three hungry and thirsty unfortunates were landed safely ashore to be greeted by two score anxious friends and a second rescue party. Save for a few scratches and insect bites they were none the worse for their harrowing night and day. Joe, the youngest boy, a chubby little chap, had several large scratches across his stomach. The boy took his shirt off during the night to place it on the limb of a tree where he was sitting. The limb broke after he had been there a while and the lad slipped back into the water. Instead of giving up hope the 14-year-old young man put himself in front of the big tree and the pressure from behind of the swiftly running water held him tight against its trunk until his father saw his predicament in the early morning hours and helped him safely to another tree.

Mrs. Watson had driven up to the edge of the flooded area with her husband and two sons Friday afternoon and was anxiously awaiting their return from their chicken coop venture. The afternoon lengthened into evening shadows and evening shadows into black night. Still no sign of life from the swamp. It was a happy reunion when they finally got together again Saturday afternoon.

At Last!

**Centralized Forward Control
for High Speed Outboard Boats**

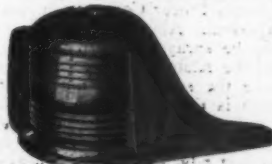


ERICO-KAINER Outboard Steerer with Built-in Throttle Control and Motor Shut Off

Designed especially for outboards. Easy to install. Cast aluminum. Walnut rim. Diameter of wheel, 17". Diameter of drum, 3". Price **\$16.00** complete with eight feet of control wire and cable for throttle control. Fits any size Caille, Evinrude, Johnson or Lockwood motor.

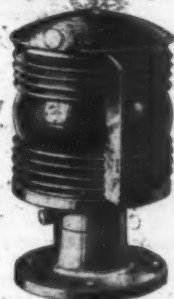
With this new Erico-Kainer centralized forward steering and gasoline throttle control on your outboard you enjoy the operating advantages of a real runabout—complete and instantaneous control of maneuvering and speed at your fingers' tip. Unexcelled for racing. Unbeatable for all types of outboard craft.

Outboard Streamline Combination Light



Polished aluminum or brass. Weight, 1 lb. Base, $3\frac{1}{4}" \times 6"$. Height overall, 3". Price, **\$5.00**.

Outboard Combination Light



Polished brass. Removable by loosening thumb screw. Weight, 3 lbs. Diameter of base, $3\frac{1}{2}"$. Height overall, $6\frac{3}{4}"$. Price, **\$8.00**.

Outboard Fin



Cast aluminum. Weight, 1½ lbs. Blade, $7" \times 5\frac{1}{2}"$. Price, **\$4.00**.

Outboard Folding Fin



Raising and lowering of fin controlled by lever. Absolutely water-tight. Weight, 4 lbs. Base, 2". Height, 14". Blade, $6" \times 12"$. Price, **\$8.00**.

Outboard Flagpole



Mahogany. Weight, 1½ oz. Base, $2\frac{1}{4}" \times 5\frac{1}{2}"$. Height, $1\frac{1}{2}"$. Diameter, $3\frac{1}{4}"$. Price, **\$1.00**.

Outboard Bow Plate

Cast Aluminum. Weight, 3 oz. Base, $4" \times 4\frac{1}{2}"$. Price, **\$1.00**.

Outboard Steering Rope Block



Outboard Lifting Handle

Cast Aluminum. Weight, $\frac{1}{4}$ lb. Base, $1\frac{1}{4}" \times 7"$. Height, 2". Price, **\$1.00**.

Outboard Tiller Rope Guide



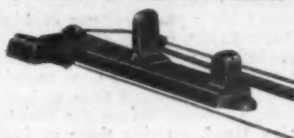
Weight, 1 oz. Base, $1\frac{1}{2}" \times 4"$. Height, $\frac{5}{8}"$. Price, **\$3.35**.

Outboard Steering Wheel



Wheel and hub made of cast aluminum. Polished rim. Weight, 2 lbs. Two sizes; 9-inch diameter wheel, **\$4.00**. 14-inch diameter wheel, **\$10.00**.

Outboard Remote Control



Enables operator to control speed from steering position. Can be installed in any convenient place. Special safety cutout plug shuts off engine in case of accident. Weight, $\frac{1}{4}$ lb. Base, $2\frac{1}{4}" \times 7\frac{1}{2}"$. Price, **\$4.00**.

Outboard Flagpole Socket



ERICO-KAINER Co.



763
MATHER ST.

CHICAGO.
ILLINOIS

Mention OUTBOARD MOTOR BOATING, 57th St. at Eighth Ave., New York

Outboard Notes

Outboards Help Rid Lake of Mosquitoes

The Johnson Big Twin outboard motor on the peculiar looking barge pictured is one of 75 Johnson Big Twins being used by the Alabama Power Company in their mosquito fleet on Lake Martin, Alabama. Alabama laws require that all artificial lakes in the state be sprayed regularly as a precaution against mosquitoes and the Alabama Power Company finds the Johnson Big Twins to be the solution of the major part of their problem. Lake Martin is the largest artificial lake in the world. It has over 700 miles of shore line. It is eight miles wide and in places is over 300 feet deep. The spraying equipment that can be used to best advantage is very heavy. That pictured on the barge above weighs over 7,000 pounds. The barge is 16 feet square and without a powerful motor it would be next to impossible to use this machinery. The Alabama Power Company has found that the Johnson Big Twins drive the barges at a satisfying rate of speed and enable them to operate the barges forward, backward or sideways. The motors are often used twelve hours a day.

Never Drove an Outboard Before; Takes Solo Cruise

Just to see what it is like, E. V. Barnes, a court reporter of Springfield, Mass., decided he would take a trip in an outboard boat down to Martha's Vineyard, a distance of 350 miles from Springfield. He had never had any experience with boats but thought such a trip would be lots of fun.

Early in August he bought a Big Twin Johnson motor and a Sea Sled from C. M. Dodge of the Crandall Cycle Company, Johnson distributor in Springfield and explained what his plans were. Knowing that the course between Springfield and Martha's Vineyard can be the roughest anywhere, Mr. Dodge tried to discourage him. He gave him a reasonably thorough course of instruction and procured charts for him. Barnes fixed up a remote control with an old motorcycle grip and a handlebar and then Dodge heard nothing from him until he received the following letter several days later:

Gay Head, Mass.

Dear Mr. Dodge:

I should have written you sooner, but have really been almost unable to. It has been hustle every minute on the way to make time. I haven't even written the wife, but have either telephoned or telegraphed her every night and have previously asked her to keep you posted as to my progress. All the old salts down here think I did some stunt without the aid of a compass. One is very insistent that I write an article for the motor boating magazines but I'm not looking for any publicity, and of course, shall not.

A trip which ought to have been made in two days, took six. I made Higganum—12 miles north of Saybrook—the first night. The next day, Thursday, two hours before sundown, I arrived at Point Judith where, in taking on gasoline I met an old salt who inquired where I was bound. I told him to Sakonnett and thence off to Gay Head. He said I had two hours before sundown and I did not need to follow along the shore to Sakonnett but to go right out to sea, with the sun on my stern, and I would see Gay Head before dark; will give you full details when I see you. Suffice it to say that I proceeded about 60 miles out and away from sight of any land when I changed my course, saw a light eventually about two o'clock in the morning and landed at Block Island before sunrise. Waited all day Friday at B. I. for the wind to subside, hopping off for the nearest point of land, Point Judith at about 11:00 and could proceed no further because of high head winds.

Left Point Judith before sunrise on Sunday but only made Sakonnett before noon, the wind again being pretty brisk; lay over the night and Monday morning before sunrise and took advantage of calm and tides to hop off for Martha's Vineyard. Quite sometime before the mainland was lost to view I sighted Gay Head, arriving there at 9:00 Tuesday.

The whole trip was a wonderful experience, but I had not a little apprehension at times when the cross rips would throw water into the boat a little faster than I could bail it out with a quart Mason jar. The motor worked wonderfully well. I broke my motorcycle handle before striking salt water, using old broomsticks in lieu thereof.

A great many of the rocks along the bottom of the Connecticut are entirely worn out by the action of my propeller, though possibly I may have missed one here or there. Rocky Point near Middletown, Conn., is well named, they are all points.

Selling sheer pins at 3c each in passing Rocky Point to motor boats, I could retire for the rest of my life after one summer's concession at that place; there are piles of jack in it for somebody.

Yours,

E. V. BARNES

Eight Hundred Miles in Eight Days

Lilith is the name of the staunch little Johnson powered 18-foot Tregoning outboard cruiser pictured above and according to the owner, C. W. Larabee of Kansas City, Mo., it is quite as enticing as was the original Lilith, whose name has gone down in history as being responsible for the first marital trouble in



Hunting alligators with outboards is great sport. Here is W. F. Parker of Marshall, Texas, bringing home the bacon

history—when she disturbed the peace of the Garden of Eden by attempting to entice Adam away from Eve.

Mr. Larabee's Lilith proved sufficiently charming to entice him and his wife and Conrad Hug to embark on a cruise on August 16 which took them all the way from Kansas City to Chicago by water. It is the kind of craft that will undoubtedly be seen in increasing numbers on inland waters from now on. Their course lay down the Missouri River to the Mississippi, up that stream to the Illinois, and up the Illinois and through the canal system to Chicago. Ten days were spent en route, a day and a half being spent visiting friends in St. Louis and another half day fishing in the lower Illinois.

The little craft has a beam of five feet five inches and a cabin arranged to sleep two. The third member of the party sleeps in the canopied cockpit, which the owners claim is absolutely water-tight when the side-curtains are up. It attracted a great deal of attention all along the way, reporters interviewing the Larabees at several points.

Lilith put into Waukegan Harbor for the Labor Day week end, where the Larabees and Mr. Hug visited the plant of the Johnson Motor Company. Here they had an opportunity to test the new Johnson Giant Twin 25-horsepower motor. Fitted with a 12-inch, three-bladed propeller with a 13-inch pitch, the Giant drives Lilith at about 16 miles per hour. The Big Twin motor they had been using drove the boat between eight and ten miles an hour. "We find it a mighty trim little craft," said Mr. Larabee. "It takes us wherever we want to go. We eat all our meals on board and haven't grown tired of our own cooking yet. Believe me, this is the way to enjoy life—nothing to worry about except your appetite and a good night's rest."

On the return trip Lilith followed the shore of Lake Michigan to Sturgeon Bay. Its course from there lay down the Fox River to Lake Winnebago, then down the Wolf River to the Wisconsin River, which carried it into the Mississippi and back into the Missouri.

Next summer the Larabees expect to take Lilith over to Europe, where they plan to spend over a year cruising around the Mediterranean Sea—into the neighborhood of the original Lilith.



GET A WINNER

Century Boats Win Again and Again

Newport — Detroit — Madison — Oshkosh
Milwaukee to Chicago—Other Important Regattas

If you want an outboard boat of proved speed, stamina and seaworthiness, you don't have to look any further. Century Boats have raced at most of the principal regattas this year, repeatedly beating the pick of other racing craft and continuing their great 1927 record when they won 26 out of 30 races entered,—an average of better than 85%. With a Century Boat and a good motor you can take the lead and keep it, wherever you go.

For example, at the Newport Regatta on August 17th, Malcolm Pope in a Century Cyclone won the Class C Amateur Race and also the Class D Amateur, running with a C-Class motor, taking first place in five out of six heats in unusually rough water. The next day, the Century Cyclone won the third heat of the Class C Free-for-All, and all three heats of the Class D Free-for-All—four out of six heats the second day, also ran in rough water.

CENTURY CYCLONE

Built for speed—and gets it. The fastest, most consistent and seaworthy outboard racing boat on the market. Price..... **\$195.**

CENTURY KID

13½' x 46½". Also fast—a World's record holder. Two or three passengers. Mahogany planked, brass and copper fastened. Price..... **\$237.**

fully equipped, linen deck..... **\$257**

Price, fully equipped, mahogany aeroplane plywood deck, a drip pan..... **\$257**

CENTURY TRAVELER

17' Mahogany Runabout seating six adults.. Roomy, comfortable and seaworthy beyond belief. Ideal for general use. Speeds up to 26 miles an hour, depending on power. Price complete.... **\$425**



Write today for latest bulletins and name of nearest dealer.

Century Boat Co.

336 Becher Street

Milwaukee, Wis.

Mention OUTBOARD MOTOR BOATING, 57th St. at Eighth Ave., New York

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Sturdy Twin



*Immediate
Delivery*

THE latest improvements are embodied in the new Sturdy Twin weighing only 60 pounds with a speed up to 1,000 R.P.M. Rigidly constructed for long service and dependability.

*The Ideal Combination of Speed,
Dependability and Light Weight*

*Write for folder describing this new Sturdy Twin—The
latest thing in superior outboard motor design*

The Gray & Prior Machine Company

BUILDERS OF HIGH GRADE MARINE MOTORS FOR OVER A
QUARTER OF A CENTURY

101 Suffield Street, Hartford, Connecticut

Branch at 117 Commercial Street, Portland, Maine

American Engines Do Strange Tasks

(Continued from page 151)

nerves of foreign skippers who frequently, by putting the helm hard up and ringing for full speed astern, just miss cutting these strange craft in two. These Chinese believe that if they cut closely across the bow of a steamship the following evil spirits will be thrown off their course.)

The approach of the junk didn't bother this English veteran of the China Coast very much but he did ejaculate, "Gaw's struth!" and a special vehemence marked the inflection for, with all sails set for a following wind but headed directly into the wind, the junk came steadily on.

Now, the Chinese do a lot of queer things, but no man can sail a junk into the wind that fashion. As the junk plowed across the bow of the steamer, the churning at her stern explained the queer phenomenon. Here was a skipper who was prodigal with his power and serene in the results thereof. Why bother with the slatting sails when the devil-paddle could push the boat just the same?

Expense? Why bother about that either? This resourceful old pirate had just sailed out into the China Sea, fished around until he hooked onto the trans-Pacific cable, cut about a mile out of it, sawed it up and sold the loot to the junkman. So much copper, even at a thief's price, yielded a young fortune.

Over in the Philippines, the daring Moros have or did have, a most disconcerting habit of running out to the Turtle Islands and picking up stock for their bootleg trade in opium which used to flourish, probably does yet more or less, with the British Islands to the south. When the wind failed, the swift little vintas were easy for the patrol boats to pick up. Then came the American motor and the patrolling of the Sulu Sea became more troublesome than ever. A Moro, in a vinta with a kicker in it, is as impudent and daring a seaman as will be found anywhere in the world.

All through the South Seas, of which Frederick O'Brien has written so much and so entertainingly without mentioning the advent of whitemen's clothes and motors, the marine motor has made its appearance. The inter-island trading schooners which used to fail so often in their rush to cover at the approach of a typhoon, now find a satisfying safety in their auxiliaries. Frequently, one sees a pair of out-rigger canoes, copra laden, putting their way to some island port, lashed together stem and stern to bring the out-riggers together for lashing and to carry the out-board motor.

Today, the Malays have motors in their proas and the Venetians have them in their gondolas. You'll find them even in the bancas of Borneo. And, you exclaim, "What is the marine world coming to?" Why, motors, of course. No people can afford to be merely picturesque any more and few of them are content to be, even though gasoline may cost from seventy-five cents to a dollar and a half per gallon.

Good Lubrication Helps Speed

Once again Duplex marine engine oil has been used in establishing a new world's record, the Detroit regatta furnishing ample proof of the extremely high regard in which Duplex is held by the greatest racing motor boat owners in the world.

Commodore Gar Wood, for the third successive year, used Duplex, defending the Harmsworth trophy with Miss America V and Miss America VII, and also setting a new world's record of 92.8 m.p.h. with the latter boat.

Not only did Duplex marine engine oil function perfectly in both the Gar Wood boats through the Detroit races, but Orlin Johnson of the Gar Wood camp reported immediately following the Harmsworth that in the entire three days' racing there was not one single case of engine trouble or failure where Duplex marine engine oil was used. Further, there was not even a fouled spark plug.

Commodore Harry B. Greening of Hamilton, with his wonderful new boat, Rainbow VII, used Duplex marine engine oil in winning the championship of North America and, as in the case of Gar Wood, lubrication performance was perfect. Since 1925, when Commodore Greening established a world's record of 1,218 miles in 24 hours with Rainbow IV, he has used Duplex marine engine oil exclusively.

The third event of extremely high speed at Detroit was the free-for-all runabout race in which Orlin Johnson, driving a Baby Gar, led the field from the start to the finish. Lubrication was perfect throughout the race, and Johnson stated, when coming up to the float after the race, that his oil pressure was as high at the finish as at the start.

A Sensation at the Detroit Regatta

New DACHEL-CARTER OUTBOARD BOATS



Combine Speed with Seaworthiness, Comfort, Roominess and Sturdy Strength

The first public appearance of this Dachel-Carter Outboard was nothing less than a triumph and a sensation. At the Detroit Regatta, September 1st, 2nd and 3rd, it proved itself the ablest boat of all the prominent outboard craft assembled there. Making the fastest time of the entire series, averaging 31.02 miles per hour over the six-mile course in rough water, it proved itself not only fast but extremely seaworthy. Won first in third heat of Class C Free-for-All and second in the series, powered with a stock Evinrude motor that had had less than ten hours previous running.

And remember, the Dachel-Carter Outboard is not a freak racing shell but a big, roomy, four-passenger runabout that is safe in rough water and sturdily built for general use. Here is a boat you can use for both racing and pleasure service and get the utmost satisfaction.

Length, 13'6"; beam, 4'. All mahogany planked, brass and copper fastened, with unusually rigid construction. Comfortable for four passengers; equipped with life preserver cushions and upholstered seat backs.

If you want the best outboard motor boat on the market, write today for literature and prices.

DACHEL CARTER BOAT CO., INC., Benton Harbor, Mich.
Designers and Builders of Quality Boats for Thirty Years

Sea Skiff



THIS is the CHESAPEAKE OUTBOARD MOTORED SEA SKIFF, a weatherly craft for persons desiring an all-round seaworthy boat for rough water fishing. It is a real SEA GOING boat, fast enough to go to and from fishing grounds miles away and seaworthy enough to stay there in a blow, yet can be beached and the motor instantly detached.

20' x 6' x 2'10"—Cedar planking 1/4" sides 1/2" bottom
Oak frames and trim Copper and brass fastenings

Write for Details of all Our Boats
CHESAPEAKE BOAT CO., INC.
Chesapeake City, Md.



PENN YAN BOATS

OUTBOARD MOTOR BOATS

Seven models, for all requirements, from family use to racing. Speeds up to 40 m.p.h.

DINGHIES

Four sizes of rowing and three sizes of sailing models. PENN YAN DINKS are justly famous.

ROWBOATS and CANOES

A complete line of high grade small water craft for all purposes. Reasonably priced.

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DINGHY



SUPER BUZZ DELUXE

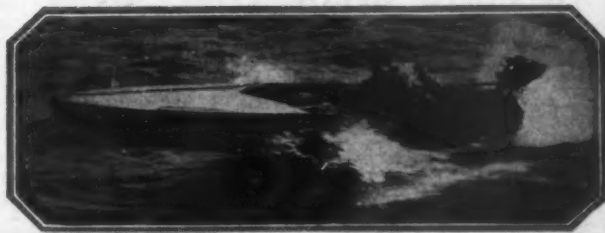
CURTIS Outboard Hydroplane A Winning 13 Footer

CURTIS outboard hydroplanes are consistent winners all over the country: Albany, St. Louis, Charleston, Savannah, Valdosta, Hackensack, Jacksonville, West Palm Beach, Tuscarora Beach, Hampton, Virginia Beach, Norfolk, Newbern, Toronto and numerous other points. Speed from 31 to 41 m.p.h. with Class C motor.

Curtis outboards can't help being winners. We designed them that way—for smooth speed and flashing performance. The Curtis De Luxe hydroplane is a sturdy boat for all-around use. Mahogany throughout—brass fastened. Tough as iron, but a real beauty.

Write today for full particulars and price.

GAS ENGINE & BOAT CO.
NORFOLK, VIRGINIA



The Newest

—in speedy, sturdy motor boats
—at particularly low prices



Dunphy V Bottom Runabout

Length 17 feet. Beam 54 inches. Mahogany planked, copper and brass fastened. Two comfortable cockpits, room for five passengers. Rumble seat forward. Equipped with Universal Flexi-Four Motor. Makes 23 miles per hour. With electric starter—\$1095. With hand starter—\$1025. (When powered with the Universal Super-Four Motor will make 35 miles per hour.)



Dunphy Sand Dab

Length 18 ft. Shallow draft tunnel stern. Runs in 11 inches of water and beaches anywhere, the propeller is protected. Room for nine passengers. Salt water equipped. Hull is cedar planked, brass and copper fastened, mahogany finished. Comes with Universal Flexi-Four Motor and makes 15 miles per hour, \$1195. (When equipped with Universal 40 H.P. Super-Four will make 22 miles per hour. Priced at \$1445.)



Dunphy V Bottom Outboard Motor Boat

Length 16 feet. Beam 48 inches. Battén seam construction. Copper and brass fastened. Makes 20 miles per hour with 4 H.P. motors—26 miles with 8 H.P. motors. Cedar planked model—\$175. In mahogany—\$250.

Dunphy launches, outboard motor boats, row boats and canoes are ready for immediate delivery. Write for the complete, illustrated catalog. It's FREE!

See our display at the Motor Boat Mart, 1725 Diversey Blvd., Chicago. VON Lengerke & Antoine, Chicago Distributor. HOWARD W. LYON, Inc., New York, Eastern Distributor. ATLANTIC RADIO & MARINE CO., Boston, New England Distributor.

Progressive representatives are invited to write for our dealers' arrangement.

DUNPHY BOAT MFG. CO.

Dept. C10

Eau Claire, Wis.

DUNPHY

"famous for boats"  "for forty years!"

Additions to Plant

Work is progressing rapidly on the new brick and steel addition to the Lockwood Motor Co. plant at Jackson, Mich.

The new space, increasing the main plant by nearly 25 per cent., will be used for greatly expanded final assembly, run-in and test, and final test and inspection providing room also for boxing and shipping. The removal of these departments from another unit of the plant provide greatly increased facilities for service stock and repairs and for the Engineering Experimental Department.

The additional factory space is necessary for a continuation of the rapid growth of the company. Shipments of outboard motors for the year ending August 31st was approximately 35 per cent. greater than the previous year in spite of the fact that it was quite impossible during the greater part of the season to make deliveries on new orders. It is estimated that had production been available the dealer organization would have grown without much effort by at least 50 per cent.

The expansion plans also call for a complete rearrangement of the machine shop and the addition of considerable new machinery to increase the output for 1929 by 50 per cent. or more over the year just closed.

The popularity of the Lockwood Ace (Class A) and Chief (Class B) motors has been due to their evident engineering refinement and the remarkable performance records set up in numerous races. The Ace has won practically all Class A races in which it was entered and the Chief the Class B races. Each holds the highest time-trial and competition American records in its respective class.

Foreign demand has been exceptionally good during past months and large shipments continue to go forward to the Southern Hemisphere, where the season is about to open.



Don W. King, who has taken over the service departments of the Lockwood Motor Co.

Don W. King, who for the past seven years has been almost continuously selling outboard motors to the trade in the central states, has now been appointed Service Manager of Lockwood Motor Company, Jackson, Michigan. Don has been selling Lockwoods since 1925.

His first task will be a complete reorganization of the Service Department, and expansion of the repair and service stock facilities. Eventually state or district service stations are to be established through the country to make parts and expert repair work available on short notice to all dealers and users.

Outboard Cruiser Moves

During the recent regatta at Detroit mile record trials were conducted by the committee in charge and many boats set up new records in their classes. The most conspicuous of these being the sensational 92.838 m.p.h. made by Gar Wood. Less conspicuous but still a most creditable performance was that made by Bill Doak in an 18 foot outboard engined cruiser. The boat, a substantial displacement craft, was driven over the mile trial course by a Johnson Class B engine at the rate of 20.343 nautical or 23.424 statute miles per hour.

HOW THE RECORD GROWS!

HOOTON BOATS HAVE WON **133** FIRSTS IN 1928 RACING

This includes the Following Outstanding Victories:

- FIRST** in the 282 mile Peoria-St. Louis Marathon—AND 1st, 2nd, 3rd, 4th, in Class B of this race!
- FIRST** in the Mississippi Valley Free-For-All at St. Louis. Proved the best hull for Giant Twin.
- FIRST** also 2nd, 3rd, 5th and 6th in Free-For-All at Milwaukee. Rough going all the way.
- FIRST** also 2nd and 3rd in Class B at Big Mid-East Regatta, Marietta, Ohio. New records.
- FIRST** at Detroit Harmaworth Regatta, winning the Free-For-All on terribly rough water.
- FIRST** in the Port Clinton-Cleveland Marathon, until forced out by fuel trouble, 6 miles to go.

Such consistent winning by a pair of hulls possessing unequalled, runabout qualities is just one factor in the tremendous popularity of Hooton boats.



DEALERS: GET LINED UP NOW FOR SOUTHERN SALES!

GORDON B. HOOTON,
505 Grandville Avenue, Grand Rapids, Mich.

SHIP

YOUR OUTBOARD MOTOR
for overhauling and winter
storage to

Outboard Motor Headquarters

BRUNO BECKHARD
Flushing Bridge, Flushing, N. Y.
Boats, Motors, Equipment

DON'T BUY A BOAT

until you have information
on the Cape Cod Line.



RAST KNOCKABOUT
18 ft. one design class.
BUILDERS OF STANDARDIZED BOATS
20' Coastal Dory—15' Decked for outboard motor. 20' Runabout—14' Decked for outboard motor. 16' Jr. Sailboat—Excellent speed for outboard motor. Row boats.
CAPE COD SHIP BUILDING CORP.
Main Office, Show Room and Works, Wareham, Mass.—Branch Office, 18 Tremont St., Boston, Mass.—Branch Show Room, 248 Purchase St., Boston, Mass.
Export Dept.: Conrad Bldg., 25 Broadway, New York City, U. S. A.

Mention OUTBOARD MOTOR BOATING, 87th St. at Eighth Ave., New York

Typhoon



\$165.

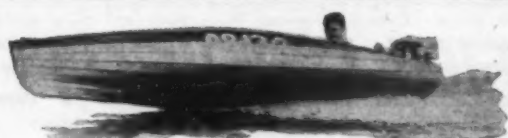
F.O.B. Factory

**Deliveries from Stock
No Waiting**

THE widely famed 36-mile-an-hour Typhoon outboard step planes are now available from stock for immediate delivery. No waiting; your order is filled the same day it is received. The Typhoon is a 13'6" racer of the finest construction. Its beamy hull combines lightness and ruggedness to an exceptional degree. A thrilling performer, yet absolutely safe, even for youngsters, the Typhoon priced at \$165, is the outstanding small boat value on the market. Natural finished model, \$180. Remember there are no delays attached to the purchase of a Typhoon. Order yours today.

Ask about our Trade-Wind model; a 15'6" double cockpit family runabout. Speeds up to 28 M.P.H. Price \$215.

DEALERS! Get our proposition today
HEMMING LARSEN BOAT WORKS
Marinette, Wisconsin



Three Star Boat
Safe, Serviceable and Speedy
The Sensation of the Season

PIGEON HOLLOW SPAR CO.
131 Coleridge Street East Boston, Mass.

Pnumaticraft

A practical 10½ ft. boat you can stow away in a locker when not in use! Inflated in 3 minutes with foot bellows. Carries 6 adults comfortably, supports 2,000 lbs. safely. Easily handled in wind or rough weather—can't capsize.

The only inflatable, portable boat with real boat lines and size. An essential part of your equipment for emergencies.



Ask your dealer or write for descriptive folder G9 and prices.

PNEUMATIC BOAT CORP.
122 Branford Place Newark, N. J.

Dealers—
Write for
Proposition



The BULLET

Sets New World Marathon Record

202 miles at 33.2 m.p.h.

THE BULLET whizzes on—winning new speed laurels wherever it is raced.

From Augusta, Georgia, to Savannah Fred Smith raced his Elto Quad powered BULLET at 33.2 m.p.h. for a new world marathon record. The distance was 202 miles.

At Marietta, Ohio, the Mid-East championship regatta, a BULLET won every Class C and Class D event as well as the Free-for-All.

At Detroit the Free-for-All was taken by a BULLET.

Consistently winning in regattas the country over—the BULLET is this season's biggest outboard sensation. WRITE FOR INFORMATION.

BOYD-MARTIN BOAT CO.

1044 Lee Street

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BOYD MARTIN

All World's Outboard Records Were Made By Boats Using

BALUBRICOTE

The FIRST and ONLY SUCCESSFUL Bottom Lubricant!

BALUBRICOTE

Put Up in Quarts
Costs You
\$2 Plus Postage
Gallon Price - \$7.50
Sent Parcel Post
Anywhere, C.O.D.
Prices slightly higher
West of the Rockies

Balubricote the bottom of your boat before you race. Neglect of this preparation may cost you the victory. This is the advice of boat builders and prominent racers everywhere.

Ask Your Dealer for BALUBRICOTE
Or Order Direct from Makers

BAHL CHEMICAL CO., 194 Elm St., Fall River, Mass.

Atlantic Radio & Marine Co.
Boston, Mass.

Haynes-Griffin Co.
New York City

Raymond V. Morris Co.
San Diego, Cal.

KIRK'S OUTBOARD SPEED AND COMMERCIAL BOATS

You will find these boats extremely satisfactory either for racing or pleasure boating. Speeds up to 26 m.p.h., depending on motor used. Sturdy construction. Absolutely seaworthy and safe. Get our prices before you buy.



16 ft. Outboard Cruiser

Builders of cruisers of any size

KIRK'S BOAT AND ENGINE WORKS - Belhaven, N. C.

16 to 20 ft. Outboard Runabout

Super Plane, Sizes 12½ ft. up

Kirk's standardized outboard cabin cruisers, 18 to 22 ft., offer exceptional values. Write for particulars.

Philadelphia Now Sets Records

(Continued from page 148)

32.00 miles an hour is a new American outboard record for four miles Class C Free for All.

When Class D Amateur event was called, it was expected that some real speeds would be shown. However, much to the astonishment of everyone, the C motors led the entire distance. In this event Miss Ricochet, owned by D. C. Fonda and powered with an Evinrude motor came in first in both the heats establishing a new four mile Class D Amateur record of 31.65 miles an hour.

Impish II had little difficulty in winning both four mile heats of Class D Free for All event. Moco II, owned by William Kramer, finished in second place. The speed of 34.04 miles an hour established by Impish II was a new American record for four miles Class D Free for All.

In the Unlimited Free for All Class for the Sir Thomas Lipton Trophy which consisted of one heat of six miles, Impish II, owned and driven by C. Allen, had little difficulty in winning, defeating Flash by ten seconds and Miss Ricochet by sixteen seconds.

A complete summary of the Philadelphia Outboard Regatta will be found below.

PHILADELPHIA OUTBOARD MOTOR BOAT ASSOCIATION

Schuylkill River, August 25, 1928

Class B Amateur—Two heats, four miles each.

Boat	Owner	Time		Position
		1st heat	2nd heat	
Fidget	H. E. Becker	8:24	8:26	1
Skeeter	F. M. Foster	8:35	8:27	2
Yankee Boy	Kenneth Yetman	8:34	8:46	3
Zero, Jr.	E. Pickard	9:23	8:54	4
Zaza	Robert Ross	9:24	9:52	5
Baby Hooton	W. W. Anstine	9:24	8:55	6
Shooting Star	C. M. Scull	10:28	9:56	7
Here Tiz	J. C. Rolfe	10:40	10:29	8
Baby Lou	J. W. Lewis	10:59	10:27	9
Miss Forest Hill	John Dougherty	11:28	10:42	10
Fairchild Aero	W. Powers	11:30	10:39	11
.....	Robert Williams	12:04	11:54	12

Best heat speed Fidget 28.57 m.p.h.

Class B, Free for All—Two heats, four miles each.

Boat	Owner	Time		Position
		1st heat	2nd heat	
Skeeter	F. M. Foster	8:22	8:26	1
Rubber Baby	Julius Herbst	8:21	8:29	2
Yankee Boy	Kenneth Yetman	8:35	8:36	3
Baby Hooton	W. W. Anstine	8:52	8:32	4
Zaza	Robert Ross	9:03	9:04	5
Fidget	H. E. Becker	8:20	DNS	6
Here Tiz	J. C. Rolfe	10:31	10:00	7
Zero, Jr.	E. Pickard	8:51	DNF	8
Baby Lou	J. W. Lewis	10:00	DNS	9
Fairchild Aero	W. Powers	10:17	DNS	10
Miss Forest Hill	John Dougherty	10:37	DNF	11

Best heat speed Fidget 28.80 m.p.h.

Class C Amateur—Two heats, four miles each.

Boat	Owner	Time		Position
		1st heat	2nd heat	
Baby Whale	J. Allen	7:38	7:30	1
Pep	F. D. Thropp, Jr.	7:51	7:40	2
Impish 2nd	C. Allen	8:02	7:29	3
Muriel	H. E. Becker	8:05	7:59	4
Century Cyclone	Malcolm Pope	8:13	8:24	5
.....	W. B. Parker	8:22	8:27	6
Miss Rutherford III	F. E. Langenheim	8:30	8:23	7
Wild Cat	E. Concord	8:17	8:33	8
Miss Ricochet	Crane & Lockhart	8:46	8:32	9
Bill a Bob	F. C. Fonda	7:59	DNS	10
Fairchild Aero	F. D. Holmes, Jr.	8:36	8:46	11
.....	H. J. Thurston	8:49	8:45	12
My Foible	Frank Davis	9:14	9:19	13
Here Tiz	P. G. Theband	9:13	8:25	14
Miss Lillian	J. C. Rolfe	9:52	9:10	15
Anhow	Chancellor	9:29	9:23	16
.....	C. T. Ludington	9:52	DNS	17

Best heat speed Impish II 32.07 m.p.h.

Class C, Free for All—Two heats, four miles each.

Boat	Owner	Time		Position
		1st heat	2nd heat	
Impish II	C. Allen	7:31	7:30	1
Miss Ricochet	D. C. Fonda	7:41	7:43	2
Wild Cat	Crane & Lockhart	8:23	8:23	3
Century Cyclone	Malcolm Pope	8:24	8:19	4
Bill a Bob	F. D. Holmes, Jr.	8:42	8:42	5
Fairchild Aero	H. J. Thurston	8:39	9:01	6
Pep	F. D. Thropp, Jr.	7:44	DNF	7
Baby Whale	J. Allen	7:53	DNF	8
Muriel	H. E. Becker	8:02	DNS	9
.....	W. B. Parker	8:23	DNS	10
Here Tiz	J. C. Rolfe	8:48	DNF	11
My Foible	P. G. Theband	8:52	DNF	12
Miss Rutherford III	E. Concord	8:57	DNF	13
Curtis Delux	G. H. Curtis	9:08	DNF	14
Red Wing	H. Vonng	9:12	DNF	15
Miss Lillian	Chancellor	9:41	DNF	16

Best heat speed Impish II 32.00 m.p.h.

(Continued on page 170)

OCTOBER, 1928

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WINNER—Class C, Free-for-all, July 15, N.E.O.M.B.A. Regatta, Providence, R. I.
WINNER—Grand Free-for-all, July 22, R.I.O.M.A. Regatta, W. Barrington, R. I.
WINNER—Class C, July 29, R.I.O.M.A. Regatta, Arnold's Neck.
WINNER—Grand Free-for-all, July 29, R.I.O.M.A. Regatta, Arnold's Neck.
WINNER—Class B Free-for-all, Sept. 2, R.I.O.M.A. Regatta, Ocean Grove.

B-D BOAT CO., 31 No. 7th Street, Fall River, Mass.

Philadelphia Now Sets Records

(Continued from page 168)

Class D Amateur—Two heats, four miles each.

Boat	Owner	Time		Position
		1st heat	2nd heat	
Miss Ricochet	D. C. Fonda	7:35	8:00	1
Muriel	H. E. Becker	8:10	8:12	2
Moco II	Wm. Kramer	8:06	8:14	3
Shady Rest	E. G. Slade	8:09	8:12	4
Century Cyclone	Malcolm Pope	8:16	8:25	5
Teddy, Jr.	W. B. Parker	8:36	8:45	6
Bill a Bob	O. S. Salome	8:42	8:34	7
	F. D. Holmes, Jr.	9:11	DNS	8

Best heat speed Miss Ricochet 31.65 m.p.h.

Class D, Free for All—Two heats, four miles each.

Boat	Owner	Time		Position
		1st heat	2nd heat	
Impish	C. Allen	7:36	7:03	1
Moco II	Wm. Kramer	7:51	7:40	2
Miss Ricochet	D. C. Fonda	7:38	7:45	3
Muriel	H. E. Becker	7:53	DNS	4
	W. B. Parker	8:02	.....	.....
Shady Rest	E. G. Slade	8:09	.....	.....
Baby Lindy	W. W. Anstine	DNS	.....	.....
Teddy, Jr.	O. S. Salome	DNS	.....	.....

Best heat speed Impish 34.04 m.p.h.

Unlimited Free for All—One heat, 6 miles.

Boat	Owner	Time		Position
		1st heat	2nd heat	
Impish	C. Allen	11:05	.....	1
Flash	Cook	11:15	.....	2
Miss Ricochet	D. C. Fonda	11:31	.....	3
Baby Lindy	Anstine	12:26	.....	4
Yankee Boy	Yelman	12:32	.....	5
Bill a Bob	Holmes, Jr.	12:57	.....	6
Hell N. Maria	Burns	DNF	.....	7

Best speed Impish 32.48 m.p.h.

Testing Outboard Hulls

An indication of the extent to which engineers go in the creation of an outboard boat of superior type is proved by the recent announcement by the chief engineer of the Aero Boat division of the Fairchild Airplane Mfg. Corp. that the staff has just completed a new instrument for testing the Fairchild Aero outboards. This instrument they have named the Beard Comparometer in recognition of the help given them by J. Gregson Beard, Washington, D. C., engineer who was called into consultation.

Fairchild engineers had formerly tested the boats by the method of running them against stopwatch time, but the obvious difficulties of such a method were such that they felt called upon to devise some means of more accurately determining the efficiency of test boats.

After much consultation and many hours spent over the Fairchild test course, the Comparometer was designed and in recent tests it has shown so remarkable a degree of efficiency that the Fairchild organization will adopt it as their standard test equipment.

The device consists of a carefully calibrated instrument which can be clamped to the test boat which is then run over any convenient course and under various weather conditions. Attached to the instrument is a pad and pencil arrangement which keeps careful record of the wave-making and frictional resistances.

Certain maximum and minimum readings have been established and unless a boat shows a speed in excess of one figure it is immediately discarded. Whenever a design is produced that shows a new maximum figure the entire possible range is moved up. In this way purchasers of Fairchild boats are assured that the new designs will continue to improve as they are produced and they are also protected from receiving any boat which has not come up to the rigid inspection standards.



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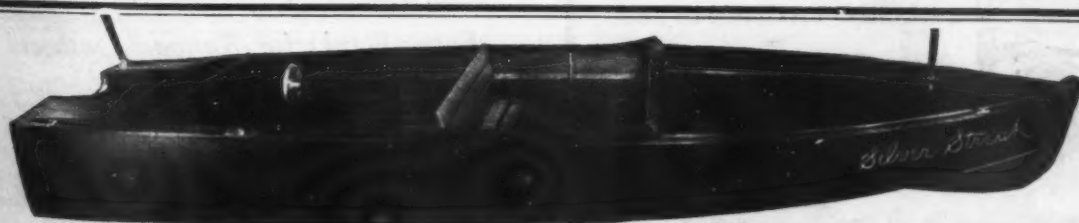
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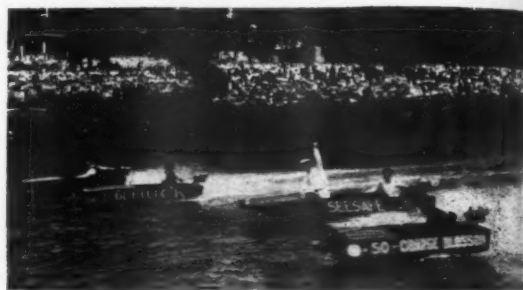
The Regatta at Broad Channel

By COM. GERALD T. WHITE

As usual, the racing season on Jamaica Bay wound up with the Atlantic Coast Championship regatta at the Broad Channel Yacht Club, home of the 151-class in the East.

A program which included eleven separate heats was run under Mississippi Valley Power Boat Association rules within three and a half hours. This gave but twenty minutes between most of the starts but although the first heat of the day was started nearly fifteen minutes behind time the officials had caught up by the third heat and thereafter each race was started within a minute of the scheduled time. As is usual at Yacht Racing Association of Jamaica Bay events, this year the scores were feminine enthusiasts and Mrs. Greta Amberman and Mrs. Edith White scored each lap finish without a single error.

The most important event was the race for the Com. Heister Gold Trophy, emblematic of the Atlantic Coast Championship in the 151 hydroplane class. This trophy was won last year by Com. Chris Ripp and it was expected that he would repeat his victory this year. The loss of his two fastest boats at St. Louis handicapped him and his entries in the Broad Channel event were followed by manifold woes. The trophy was won this year by Miss Virgiina, a Pierce-Budd-powered boat owned by William Meyer of Jamaica Bay. Hadley-Plane took second place and Raymond Kraemer's Whiskaway was third.



Mid-East Regatta, Marietta, Ohio. Orange Blossom, driven by Mrs. Genevieve Atwood, showed her heels to all Class B entrants and established a new world's record in the Class B time trials.

A free-for-all series was won by the Chris-Craft, Lady Jane owned by George Krier of Jamaica Bay with another Chris-Craft, Miss Behave in second place and the hydroplane Miss Quincey VII in third place.

As was expected the outboard events were very well filled. The B class series went to Miss Dorothy owned by Howard Stanley with Miss Minneford in second place on points and Junior Sutter Brothers, third. One of the largest entry lists ever seen on Jamaica Bay featured the C class events which were won by Ellsworth Langdon in Nonsense powered with an Evinrude. Earl Gresh from St. Petersburg, Florida, drove the Gessfein Thoroughbred to second place and Fairchild Aero 024, an experimental boat was driven to third place by an amateur who had never driven the boat before.

The outboard free-for-all was another record breaker for entries and again Nonsense came home first in every heat. Dick Wagner's Fairchild Aero Del Mar took second place with a Johnson Giant and Gresh was third with his Evinrude. On points Wagner and Gresh tied but the tie was given to Wagner for making the best time in any heat.

Entry Blanks for National Outboard Championship

The National Outboard Championship regatta sponsored by the Frying Pan Power Boat Club of Wilmington, North Carolina, is almost here. Entry blanks for this feature of the season's racing can be obtained by addressing the chairman of the regatta committee, P. O. Box 932, at Wilmington. All contestants are required to register at least 24 hours before entering an event, at the main headquarters office.

The program of the regatta is as follows: October 5—Class A Amateur, Class B Championship for Hall Scott trophy, Class B Free-for-All, Grand Free-for-All, and a Novice Class B. The championships are confined to drivers who have placed first, second or third in previous races under the A. P. B. A. sanction.

On October 6 there will be Class C Championship for the A. C. F. trophy, Class C Amateur and Class C Free-for-All. Races will be conducted according to the 1928 rules of the A. P. B. A.

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- 1st—Free-for-All, Huntington, W. Va., July 4th
- 36.2 M.P.H. Class C Speed Trials, Pettus Lake, Mich.
- 1st—Class C, Lake James, Ind., July 29th
- 2nd—Free-for-All, Lake James, Ind., July 29th
- 2nd and 3rd—Class B, Cincinnati, Ohio, August 4th
- 2nd—36-mile Marathon, Lake James, Ind., August 26th
- 2nd—Class C, Defiance, Ohio, August
- 2nd—Free-for-All, Defiance, Ohio, August

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Miami Mid-summer Regatta

THE mid-summer outboard regatta held in Miami on August 26 was an unqualified success. The course, just off the Bay Front Park, was calm to an unexpected degree, and the usual amount of driftwood in the Bay was not encountered. The event was staged by the Miami Yacht Racing Association, under A. P. B. A. sanction and rules.

For the first event the contestants assembled with their boats and motors on trailers and automobiles for the boat handling contest. This consisted of a twenty-eight block dash to the bay, where the outfits were unloaded and a run past the judges' stand was made. Jack Wade won this event by covering the twenty-eight blocks, putting his hull overboard, clamping on his motor and running approximately 600 feet in a total time of 10 minutes. This event was staged to demonstrate the portability of large outboard motors, and to show the public that two persons can easily handle an outboard hull and motor.

A fishing contest was held next, the participants leaving by a regular signal start, and returning after two hours. They were allowed to fish wherever they chose. Forest Johnson chose the water off Coconut Grove, and caught 28 pounds of barracuda, thereby winning the event, Jack Wade was second, and W. R. Herman, third.

In the afternoon an aquaplane race was run. About six boats started. After a rather lively time, Skeet Eckleberry with Ronny Davis on the plane won. Their boat was powered with an Evinsrud 16 h.p. motor. Herbert Roberts and Johnny McWade with their Johnson, second, and William Charles and Henry Taylor, third. Taylor spilled four times during this race, he always managed to remount his board.

The class B event was a battle between Forest Johnson in his Johnson powered Cat, and R. L. Miller in the Lockwood powered Phillip's 2nd Baby. The other boats were simply not in it, when compared to these two. Johnson took the first heat of two miles in 8:37. Miller was a very close second, but at the very finish he was forced to slow down and allow Charles Stanton in Baby Hi-Jacker 3rd, Johnson powered, to take second. Miller took the second heat in 7:23. On points, Forest Johnson was first; Miller, second; and Charles Stanton, third.

Class C went to Forest Johnson in his Johnson powered Cat, with a time of 7:55 for the one heat race. Jack Wade, with an Evinsrud, was second; H. G. Erzinger in Galloping Ghost, with a Johnson, third.

The real event of the day, so far as the spectators were concerned, was the passenger carrying race. This was held before the C and B events, and as a result, several boats were damaged to an extent that prohibited them from entering the other events. The boats so damaged, however, were never intended as passenger carrying craft. This was particularly true of the Cute Craft, Miss Katherine, Johnson powered, that was owned by Watson Charles. Miss Katherine was well in the lead of the entire field during the passenger race when two bottom planks split, whereupon the little craft rapidly sank—giving the only spill of the day. Jack Wade took this race with an Evinsrud in 15:37 1/2 for the 5 miles.

A very large crowd was present to enjoy the races. Motion pictures were taken of all events, and were shown at the Olympia Theatre, after which the prizes were awarded from the stage.

Huntington Yacht Club

The Fourth Annual Huntington-Cornfield race for cruising auxiliaries of 40 feet or under is reported to be getting bigger and better each year. This year the number of entries was somewhat larger than last year and although the wind was pretty light the event was quite successful.

The start took place Saturday afternoon before Labor Day in a light Northwest which held till almost sundown when it shifted to Southwest. Spinnakers were carried on all the craft till about 12:30. At four o'clock the breeze died out altogether until about 10:00 A. M. Sunday morning when a fresh Southwesterly came up.

The race was won by Cumberland of Miamoque Club owned by Burr and Grimm with a corrected time of 21-02-15. Unalga was second with 21-39-00. She was handled by George Rulon of the Huntington Yacht Club. Third place was snatched by Dragon also of the Huntington Yacht Club owned by H. D. Bixby with a corrected time of 21-41-25. All but two of the entries finished in good form.

After the race a celebration dinner was held at the Club during which the respective skippers were called upon to tell about the race. This race to Cornfield is a yearly feature of the Huntington Club activities and promises to be increasingly popular with its members.

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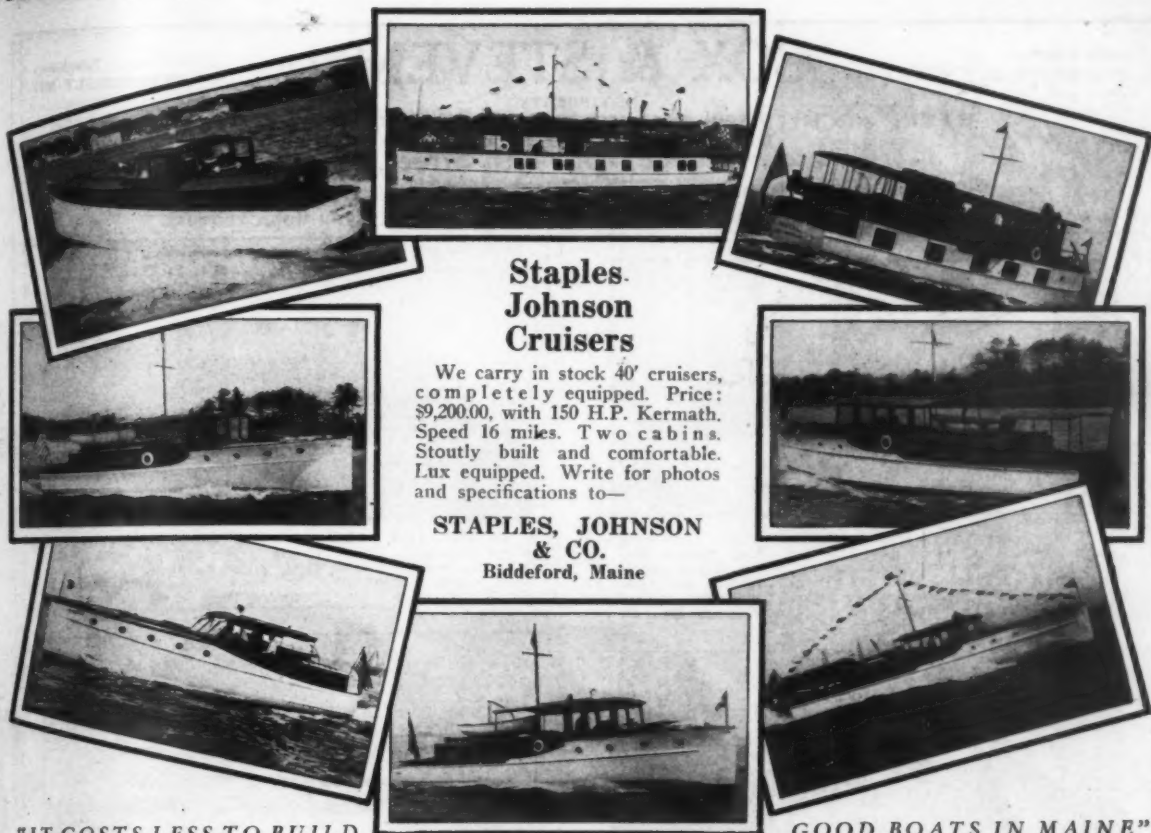
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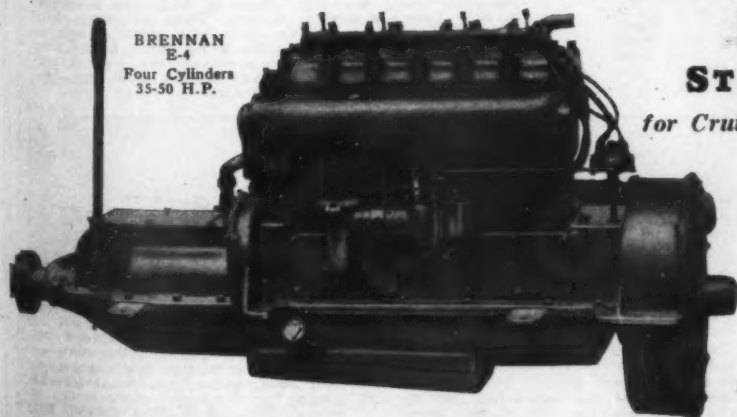
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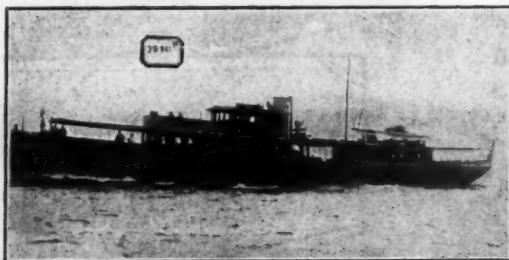
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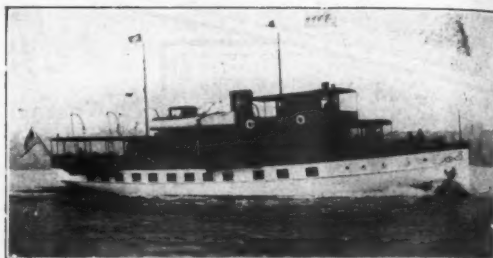
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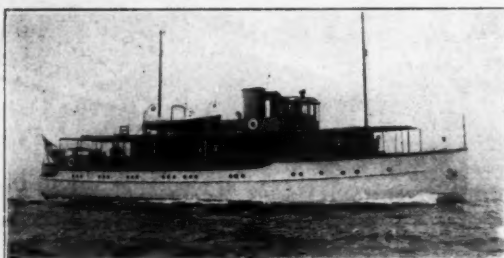
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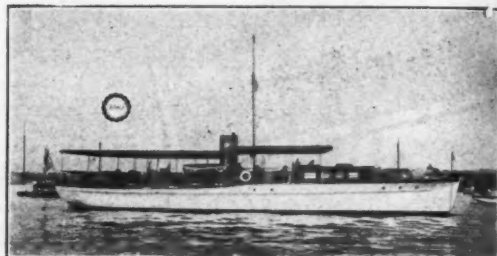
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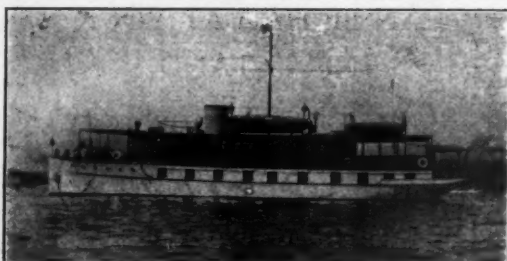
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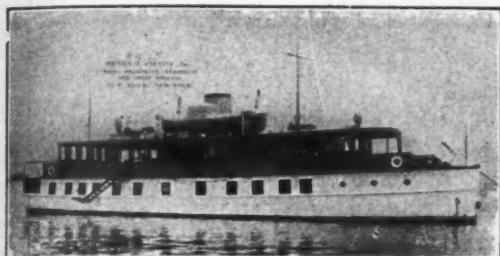
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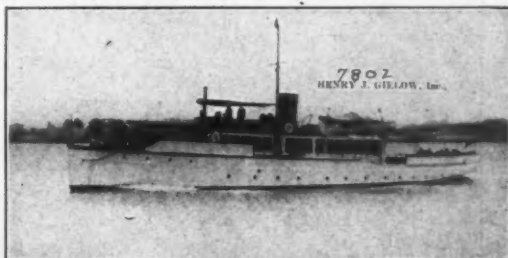
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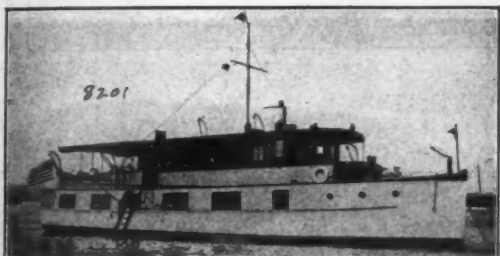
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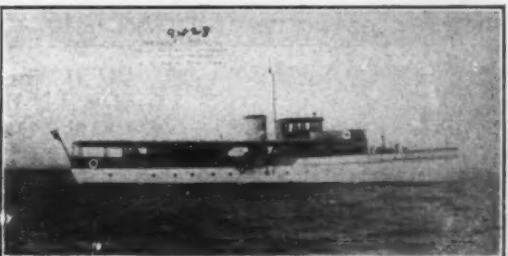
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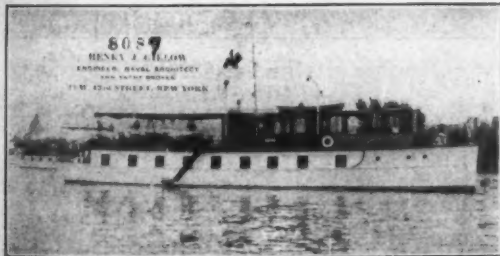
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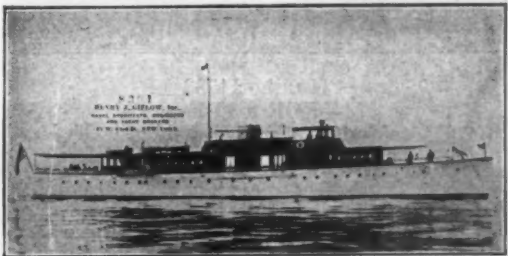
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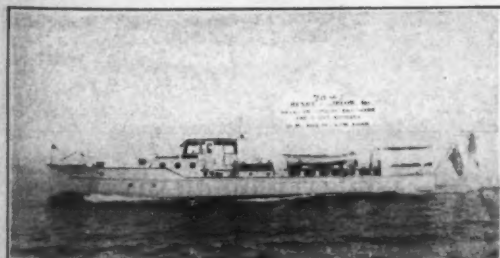
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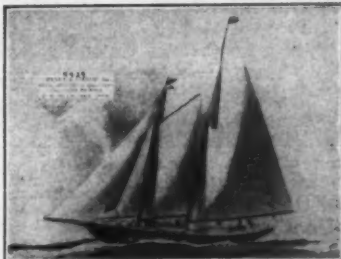
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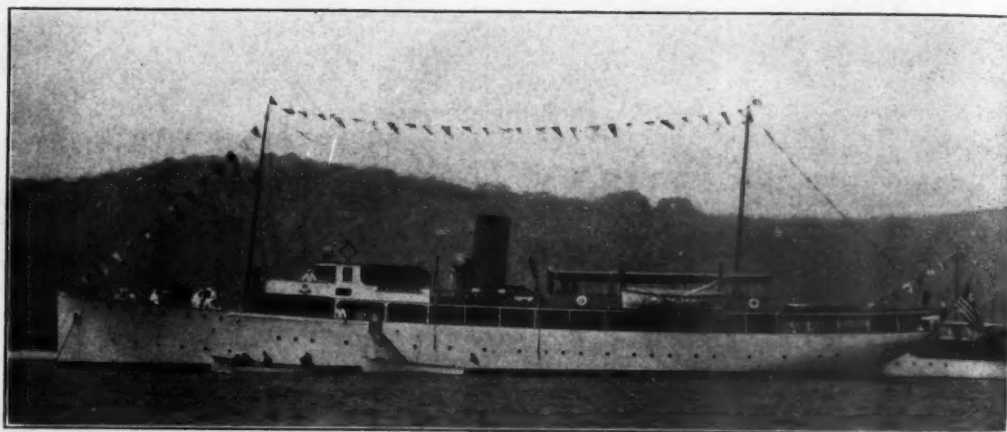
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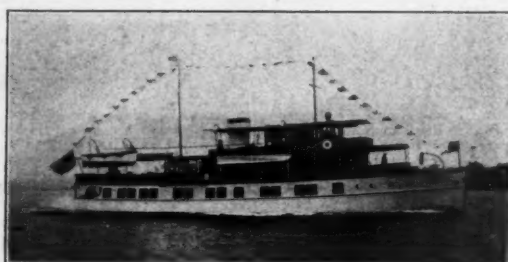
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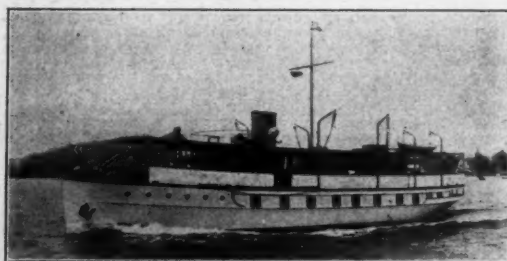
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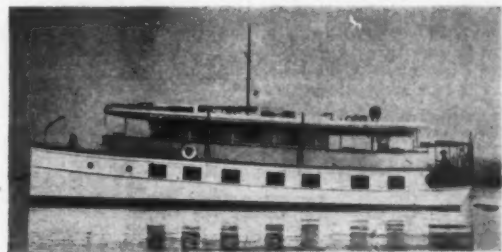
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46' x 15'3" x 3'6"	Raised Deck	35 H.P. Palmer
50' x 11'6" x 4'	Bridge Deck	45-50 H.P. Scripps
50' x 12' x 2'6"	Bridge Deck	150 H.P. Scripps
50' x 12'6" x 4'	Bridge Deck	100 H.P. Buda
50' x 10'2" x 2'3"	Bridge Deck	130 H.P. Speedway
51' x 10'3" x 4'3"	Bridge Deck	75 H.P. Speedway
52' x 13' x 4'5"	Raised Deck	66 H.P. Pierce Arrow
54' x 11'2" x 3'2"	Bridge Deck	50 H.P. 20th Century
57' x 12'6" x 4 1/2'	Raised Deck	35 H.P. Sterling
60' x 13' x 3'	Bridge Deck T.S.	(2) 75 H.P. Sterlings
65'6" x 13'6" x 3'3"	Bridge Deck T.S.	(2) 167 H.P. Sterlings
64'10" x 14'4" x 3'10"	B. D. Matthews	(2) 60 H.P. Standards
65' x 13' x 28"	Bridge Deck T.S.	(2) 65 H.P. Kermaths
65' x 10 1/2' x 4'	Bridge Deck	45 H.P. Sterling
70'4" x 11'2" x 4'	Bridge Deck	(2) 39 H.P. Dusenbergs
77' x 15'2" x 3'9"	Bridge Deck	(2) 20th Century
78' x 14' x 3'6"	Bridge Deck	(2) 180 H.P. Speedways
80' x 11'10" x 4'8"	Bridge Deck	(2) 180 H.P. Speedways
80'11" x 13' x 4'7"	Bridge Deck	220 H.P. Standards
83' x 16'3" x 6'	Bridge Deck	100 H.P. Std. Diesel
85' x 14'6" x 3'9"	Bridge Deck	(2) 115 H.P. Speedways
90'7" x 16'1" x 5'2"	Bridge Deck	(2) 165 H.P. Wintons (Gas)
92'6" x 14' x 3'6"	Bridge Deck T.S.	(2) 275 H.P. Wintons
99' x 14' x 3'10"	Bridge Deck	(2) Van Blercks
110' x 16' x 5'	Bridge Deck	(2) 165 H.P. Wintons
112'6" x 15'9" x 7'	Bridge Deck	150 H.P. Automatic
120' x 14'4" x 5'	Bridge Deck	(2) 200 H.P. Wintons
127' x 18'9" x 5'6"	Bridge Deck	(2) 200 H.P. Wintons
185' x 27' x 10'6"	Bridge Deck	(2) 800 H.P. Winton Diesels

AUXILIARIES

28' x 11'6" x 27"	Crosby Cat	No Engine
31'10" x 11'6" x 5'	Aux. Ketch	25 H.P. Penna.
32' x 10' x 4'	Aux.	12-14 H.P. Palmer
32' x 11' x 4'6"	Sloop	10-15 H.P. Palmer
33'	Larchmont Sloop	
39'11" x 12'6" x 4'	Aux. Yawl	15 H.P. Scripps
43'10" x 8'10" x 6'3"	Aux. Yawl	8 H.P. Kermath
54' x 14'8" x 8'3"	Aux.	(2) 60 H.P. Standards
72' x 16' x 8'6"	Aux. Yawl	75 H.P. Murray & Tregurtha
73'8" x 17'3" x 9'	Aux.	60 H.P. Murray & T.
74'3" x 15' x 9'2"	Aux. Ketch	60 H.P. Bolinder Diesel
88'9" x 22'4" x 9'3"	Aux. Schooner	200 H.P. Atlas Diesel

EXPRESS CRUISERS

42' x 9' x 2'8"	Express Cruiser	225 H.P. Sterling Spec.
48' x 10' x 2'4"	Express Cruiser	(2) 170 H.P. Van Blercks
58' x 12' x 3'2"	Express Cruiser	(2) 200 H.P. Hal'-Scotts
60' x 12' x 3'	Express Cruiser	(2) 180 H.P. Speedways
62' x 13'6" x 3'6"	Express Cruiser	(2) 130 H.P. Speedways
66' x 11'6" x 3'	Express Cruiser	(2) 200 H.P. Van Blercks

HOUSE BOATS

40' x 12' x 3'6"	House Boat	45 H.P. Engine
50' x 14'6" x 3'3"	House Boat	60 H.P. Sterling
45' x 13'5" x 3'	Mathia	45 H.P. Scripps
52' x 15' x 3 1/2'	Math's Standard	37 H.P. Standard
57'2" x 15'6" x 3'6"	House Boat	60 H.P. Standard
63'6" x 16' x 3'	House Boat	(2) 50 H.P. 20th Centuries
76' x 15'3" x 3'	House Boat	(2) 80 H.P. Speedways
80' x 18' x 3'6"	House Boat	(2) 65 H.P. Lathrops
93' x 18' x 4'	House Boat	(2) 150 H.P. Wintons
100' x 18'3" x 4'6"	House Boat	(2) 75 H.P. Wintons

SEA SKIFFS

30 Johnson Sea Skiff	150 H.P. Sterling
30 J. P. Kirk Sea Skiff	60 H.P. Scripps
34 Consolidated Play Boat	150 H.P. Speedway
34 Double Cab'n Sea Skiff	(2) 20 H.P. Kermaths
35 Jardine Sea Skiff	185 H.P. Sterling Dolphin
40 Red Bank Sea Skiff	150 H.P. Sterling Dolphin

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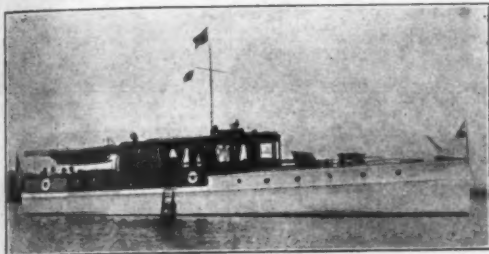
NEW YORK

936 Singer Building

Telephone: Bowling Green 9885

BOATS FOR SALE AND CHARTER

FALL LISTING



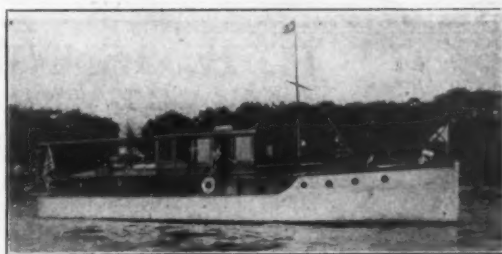
FOR SALE OR CHARTER—66'x11'0"x3' Herschoff Twin Screw Express Cruiser, powered with two 200 Horse Power Van Blerck. Boat has large deck house with dumb waiter service from galley; two large cabins with extra alcove. There are ideal quarters for crew. Hull and engine are absolutely in first-class condition. For further particulars write YACHTMEN'S SERVICE AGENCY, 534 Real Estate Trust Building, Philadelphia, Pa., or 936 Singer Building, 149 Broadway, New York City.



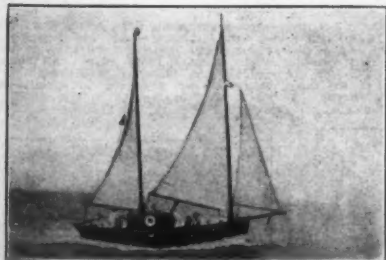
FOR SALE OR CHARTER—56'6"x15'x4' Shoal Draft, Auxiliary Yawl. Ideal for Florida cruising. Boat was entirely rebuilt in 1927, including new 40 H.P. Universal reduction gear Engine and Feathering Propeller. Boat accommodates six in the owner's quarters and two in crew. There is one double stateroom and four berths in main cabin, two in crew's quarters. Sails and rigging are practically new. For further particulars write YACHTMEN'S SERVICE AGENCY, 534 Real Estate Trust Building, Philadelphia, Pa., or 936 Singer Building, 149 Broadway, New York City.



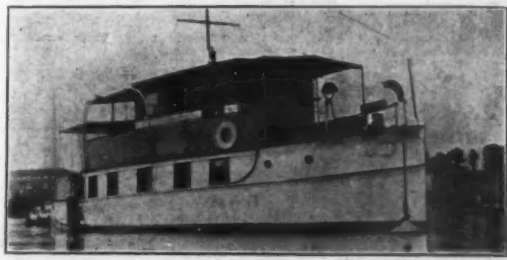
FOR SALE—38'x10'x3'8" Twin Screw, Bridge Deck Cruiser, powered with two 70 H.P. Red Wing motors. Boat is practically new. Was built in 1927. Is an able and fast little cruiser. Accommodates six in aft cabin; three two and four in Forward Cabin. Has 2 toilets and shower bath. All spring beds. High grade construction. No money has been spared to make best equipped and finest boat of her size afloat. For further particulars write YACHTMEN'S SERVICE AGENCY, 534 Real Estate Trust Building, Philadelphia, Pa., or 936 Singer Building, 149 Broadway, New York City.



FOR SALE—50'x10'x3'8" Enclosed Bridge Deck Cruiser, powered with 130 H.P. Speedway. Built in 1926. Accommodates six and one in crew. Boat has large, double owner's stateroom aft with bathroom adjoining, full size tub. Forward cabin has two wide spring berths; toilet and large, complete galley. In one man control and separate electric light plant. Yacht luxuriously equipped and beautifully finished in mahogany with tinted paint. For further particulars write YACHTMEN'S SERVICE AGENCY, 534 Real Estate Trust Building, Philadelphia, Pa., or 936 Singer Building, 149 Broadway, New York City.



FOR SALE—31'x10'x11'6"x5' Auxiliary Ketch, Marconi rig, powered with 25 H.P. 4 cylinder engine. Will accommodate five comfortably in separate berths. Is ideal yacht for offshore cruising. Plenty of deck space and real living quarters below. Boat practically new. For further particulars write YACHTMEN'S SERVICE AGENCY, 534 Real Estate Trust Building, Philadelphia, Pa., or 936 Singer Building, 149 Broadway, New York City.



FOR CHARTER ONLY—45'x13'5"x3' Mathis Boat, 45 H.P. Scripps engine. Has double stateroom, twin beds; large main cabin. Will sleep three. Commodious bathroom and galley with dumbwaiter service to deck-houses. Yacht renovated 1928, including new carpets, upholstery, heating plant, galley stove, and new electric lighting plant. Everything like new. For further particulars write YACHTMEN'S SERVICE AGENCY, 534 Real Estate Trust Building, Philadelphia, Pa., or 936 Singer Building, 149 Broadway, New York City.

Mention MoTOR BOATING, 57th St. at Eighth Ave., New York

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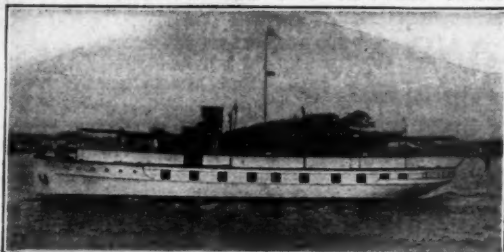
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Whitehall 1170

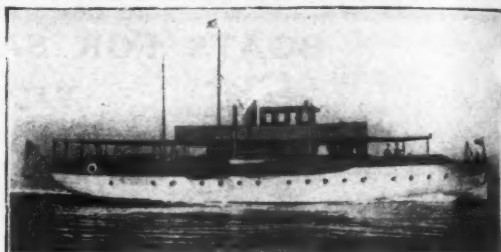
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No. 8691—FOR SALE OR CHARTER—94' Power House Yacht—One of the latest of the Mathis build—Condition better than new—FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.



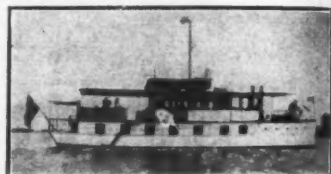
No. 8801—FOR SALE—One of the latest of the cruising Power Yachts. Length 90' (about). Of the best design and build. Exceptional accommodations. Twin screw. Speed up to 14 miles. Good cruising radius. Yacht if anything better than new. FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.



No. 8602—FOR SALE—Twin Screw Motor Boat—Built especially for Florida fishing. FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.



No. 5198—FOR SALE—51' Express Cruiser—Lawley built — Twin Screw — Speed 20 miles—Excellent accommodations—Exceptional proposition —FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.



No. 7710—FOR SALE OR CHARTER—65' Power House Yacht, built by Mathis—Twin Screw —Large deck saloon, three double staterooms and dining saloon—FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.

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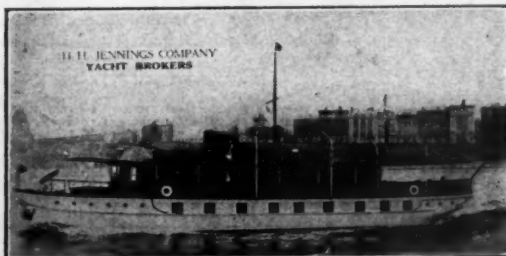
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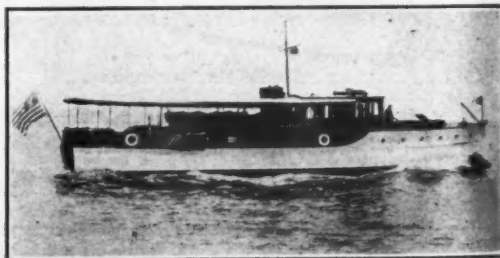
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No. 4678—Sale or Charter. 94-ft. Mathis houseboat. Three double and one single staterooms. Dining saloon and living room in deckhouse. Three toilets, baths, etc. Splendid crew's quarters. Two 200 H.P. Winton motors. Speed 14-15 miles. Frigidaire locker. Hot water heat, electric plant, etc. Strictly up-to-date and the latest Mathis design.



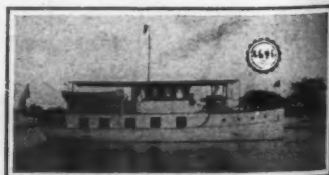
No. 2733. 67-ft. twin-screw power yacht. Two double staterooms. Two berths in main saloon and berth in deckhouse. Two toilets and bath. Fine galley and good crew's quarters. Beautifully finished in mahogany. Two 100 H.P. Sterling motors. Speed 14-15 miles. All modern conveniences. 110 volt Universal Lighting Plant. Fire Extinguishing system, etc. One of the finest yachts of her size, and in splendid condition throughout. Better than new. Must be seen to be appreciated. H. H. Jennings Company, 29 Broadway, New York, N. Y.



No. 2976—43-ft. Elco Cruiser. Double stateroom. Two upper and two lower berths in main cabin. Two toilet rooms. Galley and berth for man. 43 H.P. Elco Motor. Speed 13 miles. Electric lights, etc.



No. 2946—62-foot twin-screw Elco Cruiser. Two double and one single staterooms. Four berths in dining saloon. Large sunny deckhouse. Separate pilot house. Two toilets, one bath. Crew's quarters forward. Two 94 H.P. Elco motors. Speed 13-14 miles. Electric lights, etc. Can also nine in owner's party. Very staunch and seaworthy.



No. 4735. 53-ft. Mathis houseboat. One double and one single stateroom. Two berths in main cabin and one in deckhouse. Toilet and shower bath. Three berths and toilet for crew. 33-37 H.P. Standard Motor. Speed 9-10 miles. Universal Lighting Plant.

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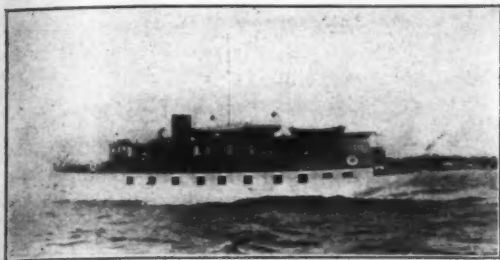
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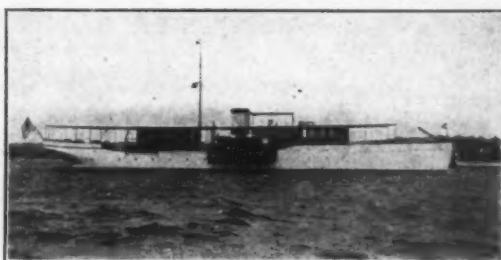
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No. 1106—Houseboat for sale. Unusually priced houseboat for sale, one of the finest in the fleet. Length o.a. 92'. Beam 18'. Draft 4'. Powered with two 6 cylinder 150 H.P. Winton motors. Speed 14 m.p.h. Write for further particulars.



No. 323—Twin Screw, Lawley built. Diesel Cruiser. Length o.a. 110'. Beam 18'. Draft 6'. Powered with two 6 cylinder 150 H.P. Winton Diesels. Speed 16 h.p.h. Write for further particulars.



No. 318—Express Cruiser for sale. Condition perfect. Length o.a. 67'. Beam 13'3". Draft 3'4". Powered with two 6 cylinder 5 x 7 Liberty. Write for further particulars.



No. 362—Twin Screw Express Cruiser exceptional boat. Length o.a. 62'. Beam 12'. Draft 3'. Powered by two 6 cylinder 180 H.P. Speedway motors. Write for further particulars.

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GEO. W. ELDER

Associate

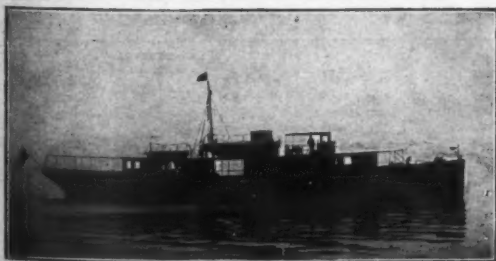
OUR MOTTO: To offer yachts which will be a pleasure for you to own and a recommendation for us to sell; to render such service as to have you feel you should like to do business with us again.



No. 1903—FOR SALE OR CHARTER—1904 twin-screw cruising houseboat, speed 13 miles. Built 1935. Has 5 staterooms, 3 bathrooms, deck dining saloon, music room, etc. A palatial floating home, exquisitely furnished.



FOR SALE—57' power house-yacht, speed 11 miles. Has 1 single, 2 double staterooms. Living room and dining saloon on deck, etc. A very comfortable cruising yacht.



No. 2313—FOR SALE OR CHARTER—127' steel twin screw cruiser, speed 15 miles; five staterooms; deck dining saloon and social hall; bathroom, etc. A commodious yacht, in excellent condition.



No. 2303—One of the popular Elco 504 cruisers, built 1937, speed 12 miles. Saloon with 4 berths. After double stateroom—cabin 3—berth for man. An ideal cruiser and very economical to operate.

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WILLIAM GARDNER & CO.

Naval Architects, Marine Engineers and Yacht Brokers

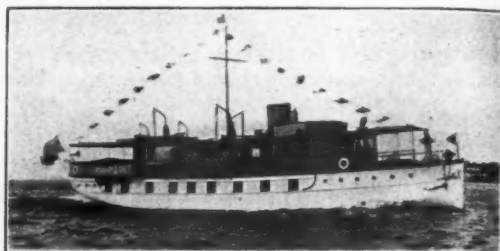
Phone: Bowling Green 9633

No. 1 BROADWAY, NEW YORK

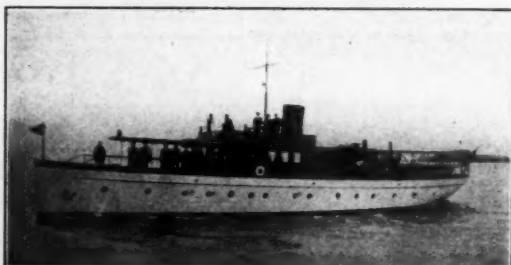
Cable Address: Yachting, N. Y.



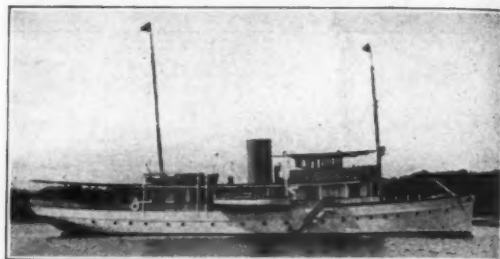
No. 2334—FOR SALE—Twin-screw Lawley-built 85-foot power yacht. Hull double planked. Speedway motors, new 1927. Nicely fitted and furnished. Price very attractive.



No. 220—FOR SALE OR CHARTER—Twin-screw 94-foot houseboat. New 1927. Handsomely furnished and well equipped. Ready for immediate use.



No. 2389—FOR SALE—Twin-screw 95'x19'2" motor yacht built in 1924. Able and wholesome. Good accommodations and deck space. Ready for prompt use at very reasonable price. Full details on request.

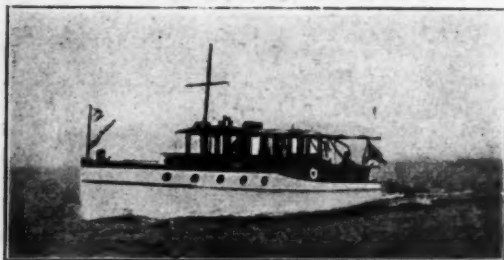


No. 2892—For Sale—Twin Screw Diesel Yacht, 108'x18.5, two 6-cylinder Bessemer motors, speed 12-13 knots. Yacht practically new. Owner has purchased larger boat. Price attractive.

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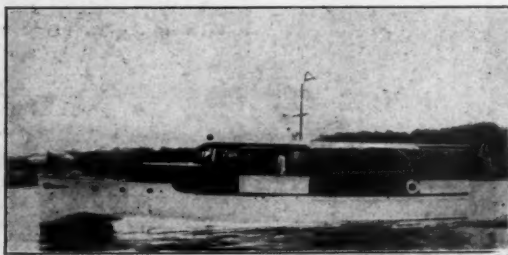
WE HAVE A COMPLETE LIST OF ALL STEAM AND POWER YACHTS, AUXILIARIES AND HOUSEBOATS, WHICH ARE FOR SALE AND CHARTER. Plans, photographs and full particulars furnished on request.



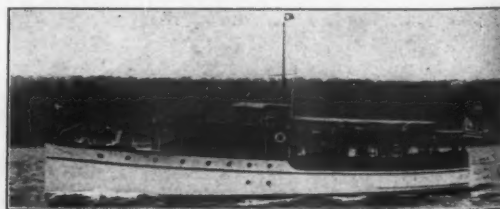
No. 2462—FOR SALE—One of the famous A.C.F. 50-foot cruisers with semi-enclosed bridge, two double staterooms with bath and a separate dining saloon. Two 100 H.P. Hall-Scott motors give a speed of 15 to 17 miles. Further particulars from Henry C. Grebe & Co., Inc., 400 N. Michigan Ave., Chicago, Ill.



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No. 11-8—FOR SALE—30 ft. x 14 ft. beam deckhouse cruiser with Diesel engine. Heavily constructed, recent build. Excellent value. Further particulars from Henry C. Grebe & Co., Inc., 400 N. Michigan Avenue, Chicago, Ill.



No. 2448—FOR SALE—Modern and attractive 75-foot deckhouse cruiser. Most comfortable for extended cruising. Two single and two double staterooms, two bathrooms and large deck dining saloon as well as unusually pleasant deck space. Further information from Henry C. Grebe & Co., Inc., 400 N. Michigan Ave., Chicago, Ill.

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"For Sale" and "Want Advertisements," 10c. per word, minimum \$2.50 per issue, payable cash with order. For illustrated advertisements, add to the charge for text at 10c. per word, the following:

Cut 1 inch deep, 2 inches wide.....	\$10
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Cut 2¼ inches deep, 4 inches wide.....	\$25
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Send photograph or negative, which will be returned if requested.

MoToR Boating, 57th Street at Eighth Avenue, New York, N. Y.

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RICHARDSON 28 DEMONSTRATOR, Elco Cruisette, Elco 26 ft., semi-house boat 35 ft., excellent for trip to Florida \$1,500. Party boat 40 x 14. Fishing Boat open 30 x 8. Aux. Cat 25 ft. 16 ft. Launch \$250. Cabin cruisers \$650 up, 25 to 65 ft. Isotta Marine Motor 120 H.P. with starter, perfect, cost \$5,000. Offer wanted or trade. Terms, trades. F. D. Homan, Agent Richardson, Wheeler, Fleetwing. 78 Riverside Ave., Amityville, L. I., N. Y.

WANTED—Designing yacht draftsman with an all around experience in wood and steel construction and capable of designing a yacht complete by an established and prominent firm of naval architects. Please reply by letter stating age, experience and salary desired. Address Box 106, MoToR Boating.

WANTED—Houseboat or Beam Cruiser about fifty feet with deck house and full sleeping accommodations. Must be in first-class condition, not over ten years old, and have modern power plant. Send photographs which will be returned. Give full particulars, lowest cash price in first letter. J. Healy, 92 William Street, New York City. Telephone: John 6450.

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WANTED—Matthews 28' or Elco Cruisette. Will pay spot cash. Not interested unless bargain is offered. S. Austin, 19 Seyms Street, Hartford, Conn.

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12 H.P. Unit F.....	\$ 350
16 H.P. Unit F.....	\$ 375
20 H.P. Unit F.....	\$ 400
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50 H.P. S.E.F.....	\$ 950
100 H.P. S.E.F.....	\$1,150

These motors have the factory guarantee of one year or more. They are bargains at these prices.
Kermath Mfg. Co., 5879 Commonwealth Ave.
Detroit, Michigan

DOUBLE CABIN CRUISER WANTED about 40' x 10'. Must be in first class condition, not over three years old and priced low to justify carrying over to next season. Send full details. Box 104, care of MoToR Boating.

Bargains, Elco Cruisette, practically new; used Greenport 36; used Fleetwing 38; used double cabin Bridge deck 36. All fully guaranteed. Frank Borick, 262 W. 57th Street corner 8th Ave. New York City.

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OUR lists of used boats include some of the rarest bargains on the market. Whether your need is for a 50-mile-an-hour runabout, a comfortable house boat, a sea-going cruiser or a sail boat, we have the boat you want and at a price that will surprise you.

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If you have a boat or motor to sell—let us find a buyer for you.

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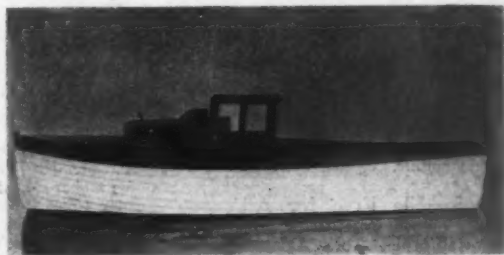
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28' NEW YORK STANDARDIZED CRUISER

The last of this year's production! A chance to buy one of these famous standardized cruisers at a decided reduction. 26' x 9' 6" x 2' 4", Kermath powered—as staunch and seaworthy a boat as has ever been built. Only one more available. Immediate delivery.

BRUNS KIMBALL & CO., 50-52-34 West 17th St., N. Y. City



FOR SALE: Thirty foot sea skicruiser, four berths, galley, toilet, two hundred horse Hall-Scott motor. Cost over ten thousand. Price five thousand. 34 Bay Avenue, Ocean City, N. J.



For Sale

RAINBOW III

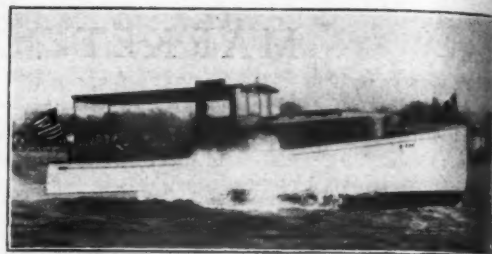
IF YOU ARE the man who wants an exceptional cruiser for Florida or for Northern waters in the Spring, you are just the man to whom this offering should appeal.

RAINBOW III was designed and built by Consolidated in 1926. Twin Speedway Engines. Speed 20 miles. Sleeps six in owner's quarters. Price right.

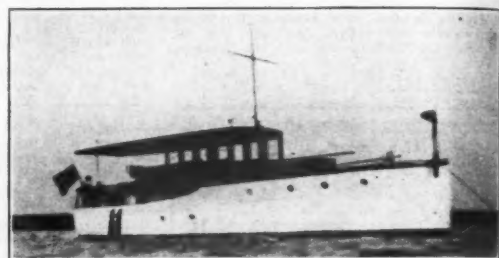


Wire or write for details

CONSOLIDATED SHIPBUILDING CORP.
MORRIS HEIGHTS NEW YORK



FOR SALE—Demonstrator, 1928 model Richardson Cruisabout, finest small cruiser on the market. Perfect condition, never used except for demonstrations. Six cylinder Gray motor, Model 6-72, speed 14 miles. Also demonstrator same model with Gray 6-40 engine, speed 11½ miles. No. 1927 Dodge Water car, Curtiss 90 H.P. motor, speed 32 miles. Excellent condition; can be demonstrated. Write today for prices. Wilbur H. Young & Co., 262 West 57th St., New York, N. Y.



FOR SALE—42' Elco, built in 1927; in good condition for Florida waters. Reply to MoToR Boating, Box 105.

American Motor Boat Records

(Continued from page 22)

Mile Trials, Free for All

Cute Craft Herself, owned by A. T. Buffinton at Albany, N. Y., July 6, 1928. Built by Cute Craft Corp., Evinrude engine. Speed, 37.749 statute.

C-U-Later, owned by M. Roy Brady at Detroit, Mich., on September 4, 1928. Built by Brady Boat Co., Evinrude engine. Speed, 29.4 nautical, 33.854 statute.

2 Mile Free for All

Baby Whale XIII, owned by H. R. Maddocks at Worcester, Mass., May 30, 1928. Built by D. N. Kelley & Son, Evinrude engine. Speed, 32.876.

3 Mile Free for All

Baby Whale owned by W. Hockenjos, Jr., at Greenwood Lake, N. Y., July 5, 1928. Built by D. N. Kelley and Sons, Evinrude engine. Speed, 32.6.

5 Mile Free for All

Firefly, owned by Charles Holt at San Diego, California, April 22, 1928. Built by F. Ashbridge, Evinrude engine. Speed, 34.46.

6 Mile Free for All

Century Kid, owned by Jim Welch, at Oshkosh, Wisconsin, July 15, 1928. Built by Century Co., Johnson engine. Speed, 33.645.

10 Mile Free for All

Baby Whale XIII, owned by H. R. Maddocks at Worcester, Mass., May 30, 1928. Built by D. N. Kelley & Son, Evinrude engine. Speed, 32.668.

Class D

Mile Trials, Amateur

Baby Wanderjax, owned by Willard M. Ware at Miami Beach, Florida, March 19, 1928. Built by Boyd Martin Boat Company, Elto engine. Speed, 31.08 statute.

Uniplex, owned by W. B. Schulte and W. M. Fry, at Detroit, Michigan, on September 4, 1928. Built by Century Boat Co. Elto quad engine. Speed, 32.70 nautical, 37.654 statute.

2½ Mile Free for All

Miss Bell Air, owned by George P. Bailey at Charlevoix, Michigan, August

5, 1928. Built by Brady Boat Co., Elto engine. Speed, 35.019.

4 Mile Amateur

Miss Ricochet, owned by Douglass C. Fonda at Philadelphia, Pennsylvania, on August 25, 1928. Built by D. N. Kelley, Evinrude engine. Speed, 31.65 m.p.h.

4 Mile Free for All

Impish II, owned Chesley J. Allen at Philadelphia, Pennsylvania, August 25, 1928. Built by Cute Craft Company, Evinrude engine. Speed, 34.04 m.p.h.

Class E

Mile Trials, Amateur

Baby Whale XIII, owned by H. R. Maddocks at Worcester, Mass., May 30, 1928. Built by D. N. Kelley & Son, Johnson engine. Speed, 35.022 statute.

Mile Trials, Free for All

Muriel, owned by Bill Doak at Detroit, Michigan, September 4, 1928. Built by Bill Doak, Johnson engine. Speed, 22.510 nautical, 25.926 statute.

OCTOBER, 1928

REBUILT ENGINES

Every year a greater number of yachtsmen learn the economy and advantage of replacing their power plant in the fall rather than in the spring. If you don't know them, write us and we'll tell you. For immediate delivery—guaranteed rebuilt marine engines of all sizes, makes and types. The prices will surprise you.

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New York City.

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Originators of the Rebuilt Engine.

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Philadelphia, Pa.

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NAVAL ARCHITECT & YACHT BROKER

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NEW YORK CITY

Ashland 5334



An opportunity to buy one of these famous standardized boats at the lowest price we have ever offered one—38 x 11 x 3, Kermath powered, with an unusually complete equipment. Condition of hull, engine and equipment perfect. Inexpensive around New York City. Immediate action is advised.

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50 West 17th St. New York City

Licensed Yachting Captain wishes position. Six years' experience in Florida, Bahamas and Cuban waters. Knows sport fishing. Edward Walker, 200 Washington St., Roxbury, Suite I, Boston, Mass.

HOUSE BOAT FOR CHARTER—Fishing on the East and West Coasts of Florida. Tarpon and small fish. Comfortable boat, twin screw, well equipped and furnished; good deck space, lounge and dining salon upper deck. One double stateroom, two single rooms, tub bath. Fast fishing launch, captain's services and competent crew. Thoroughly familiar with above waters. Many years experience. Address Walter B. Alderman, Fort Myers, Florida.

FOR SALE—Valuable Shore Front Plot at South Norwalk, Conn., suitable for any business connected with motor boating. 205 feet frontage on deep water channel, 200 on public highway. Centrally located for Westchester-Connecticut shore from New Rochelle to Bridgeport. Property includes 10-room house on corner plot across street. Reasonably priced to close estate. Send for photo and description. **FAIRFIELD COUNTY REALTY SERVICE**, Gurley Bldg., Stamford, Conn.

GENUINE BARGAIN

1928 Richardson Master Cruiser about 28' x 8' 10" by 2", 6 cylinder, 40 H.P. engine used as demonstrator only for three months. Perfect condition. Will be sold at substantial reduction for quick sale. Catalogue on request.

MARINE EQUIPMENT & SUPPLY COMPANY

116 Walnut Street, Philadelphia, Pa.

FOR SALE: 1 Hacker designed Richardson built runabout with 70 horse power Kermath; all necessary equipment including electric bilge pump, running lights, etc. Grant M. Brinnier, Sargents, N. Y.

WANTED

Enclosed Bridge Deck Cruiser. 38 to 45 feet long, 10'9" to 12' beam. Must have cabin fore and aft, late model, first class condition and fully found. Picture and complete details, lowest cash price. No dealers. J. Dawson, 5 N. Oxford Ave., Ventnor, N. J.

SEA SLED HULL WANTED—About 23 feet. State condition and cash price. C. G. Da Bell, 19th and Federal Streets, Camden, N. J.

FOR SALE—Baby Whale Racing Hull. Only used half season. Elgin Tachometer with Johnson Fittings. Will sacrifice. Full details on request. A. J. Yardley, Orange, N. J.

FOR SALE—One pair Model W-5, Six cylinder Winton gasoline engines 125 H.P. at 400 R.P.M., 3" bore 9" stroke. Also one pair 150 H.P. Sterling Sea-Gull engines entirely rebuilt and in fine condition. J. N. Vernam, N. W. 2nd St. & Miami River, Miami, Fla.

WANTED—Cruiser, bridge deck preferred; must have two separate sleeping compartments for privacy; length 36' to 42'. The hull and motor must be in A-1 condition. Will pay \$2,500 cash. No junk. Send full particulars, photo, location of boat, age, etc. Room 1222, 152 West 42nd St., New York City.

FOR SALE—Sea Skiff Day Cruiser 26' x 7'4". Built by Wallin of New York. Lap strake plank-ing, mahogany wind shield and upper works. Two berths, toilet, galley, Scripps F Six Junior Gold Cup motor. Two years old. Speed 23 miles over measured course. Bargain at \$2,000. Lewis Murdock, Sandusky Boat & Cabinet Works, Sandusky, Ohio.

FOR SALE—Raised deck cruiser, 40 x 16 x 3. Peerless motor, generator, Sands plumbing, 4 spring berths. Modern throughout. \$3,700 in commission in New London. H. E. Carpenter, 302 Washington St., Norwich, Conn.

ELCO CRUISETTE with many extras, monel shaft, spare propeller, etc. Condition like new. Write or call Dunn's Boat Yard, Miami, Florida. Priced way below market for quick sale.

Four cyl. four cycle with reverse gears:—25 H.P. Model Z Gray unit plant with starter-generator, \$245. 25 H.P. Peerless, \$235. 30 H.P. Doman 45626, \$245. 40 H.P. Doman 6x6, \$225. 40 H.P. Wisconsin six cyl. 4 1/2 x 5 with starter-generator, \$295. 20 H.P. Buffalo two cyl. 6 1/2 x 7, \$265. 300 H.P. Fiat six cyl. with Gar-Wood conversion starter-generator, \$545. 25 H.P. Gray Model T, three cyl. two cycle and others, \$75. Badger Motor Co., Milwaukee, Wis.

1926 DODGE WATERCAR—22 ft., Dodge power plant, bargain, like new, can be seen Sunday. Seward, N. J. Boat Club or write F. Weber, 1104 Grove St., Irvington, N. J.

150 H.P. G-6 SCRIPPS 1927 Model. Starter, generator, double ignition, etc., not run over 50 hours. Overhauled and guaranteed. Bargain, \$1,000.00. E. J. Van Seiver, 24th & The Parkway, Phila., Pa.

WILL TRADE new \$1,000 piano for motor boat. Cash in addition, if required. State complete description. Will answer immediately. Box 103, MoToR Boating Co.

THREE ENGINE BARGAINS

One new model FE-4 Frisbie four cylinder engine (30-42 H.P. at 800-1200 R.P.M.)

One new model TS-4 dual valve Frisbie four cylinder engine (100-125 H.P. at 1200-1500 R.P.M.) Bosch magnet.

One very slightly used model FF-4 Frisbie four cylinder engine (42-60 H.P. at 600-900 R.P.M.)

All have starter, generator, Atw-Kent igni., Scheb. carbur., and Paragon Rev. gear.

ALL IN GOOD RUNNING SHAPE—ORIGINALLY PRICED AT \$1250, \$2700, and \$1675 respectively (in Los Angeles). WILL SLASH PRICES TO A FRACTION FOR CASH.

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Newstand

Make Sure of Your Copy
by Asking Your Dealer
to Reserve It Every
Month

William E. Cornes, Motor Boat Operator, previously of Chicago. Important you communicate with W. F. McNamara, 134 So. La Salle Street, Chicago, Ill., immediately.

WANTED—Elco Cruisettes, Elco 26 footers, Richardson's, etc. F. D. Homan, 78 Riverside Ave., Amityville, L. I., N. Y.

Navigating Nimrods

IF YOU'RE going duck-hunting this fall, have a good flashlight with you. It should be standard equipment in every motor-boat. Gasoline and firearms and darkness—what a combination for making trouble! Be SAFE with an Eveready. Get the guns ready; put everything shipshape; be safe, certain and sure with a flameless, non-spillable, wind-defying, ever-dependable Eveready.

The flashlight habit is one of the best, afloat and ashore. Start right with it today. Get yourself an Eveready Flashlight and make a mental note about future batteries. Make them "Eveready," too, when you reload, for Eveready Batteries keep any flashlight filled with the most reliable, longest-lasting light-power. They're simply made of light, those batteries. Loaded to the doors with concentrated daylight. Be sure you always get genuine Eveready Batteries.

Mention MoToR Boating, 57th St. at Eighth Ave., New York

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OCTOBER, 1928

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EVEREADY COLUMBIA Dry Batteries

-they last longer

THE speedy Century Kid is running on an Elto engine with ignition from an Eveready Columbia Hot Shot—an ideal combination. Eveready Columbias are recommended by Elto. They safeguard the Elto reputation for “starting on a quarter turn,” and running for hours on end, at any desired speed, with never a miss or cough. Eveready Columbias always furnish the same spark, regardless of engine speed. That is why they are such favorites among owners of boats of all sizes. Great for quick starting and reliable running.

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NATIONAL CARBON CO., INC.
New York  San Francisco

Unit of Union Carbide and Carbon Corporation

Mention MoToR BOATING, 57th St. at Eighth Ave., New York





FAIRFORM FLYER

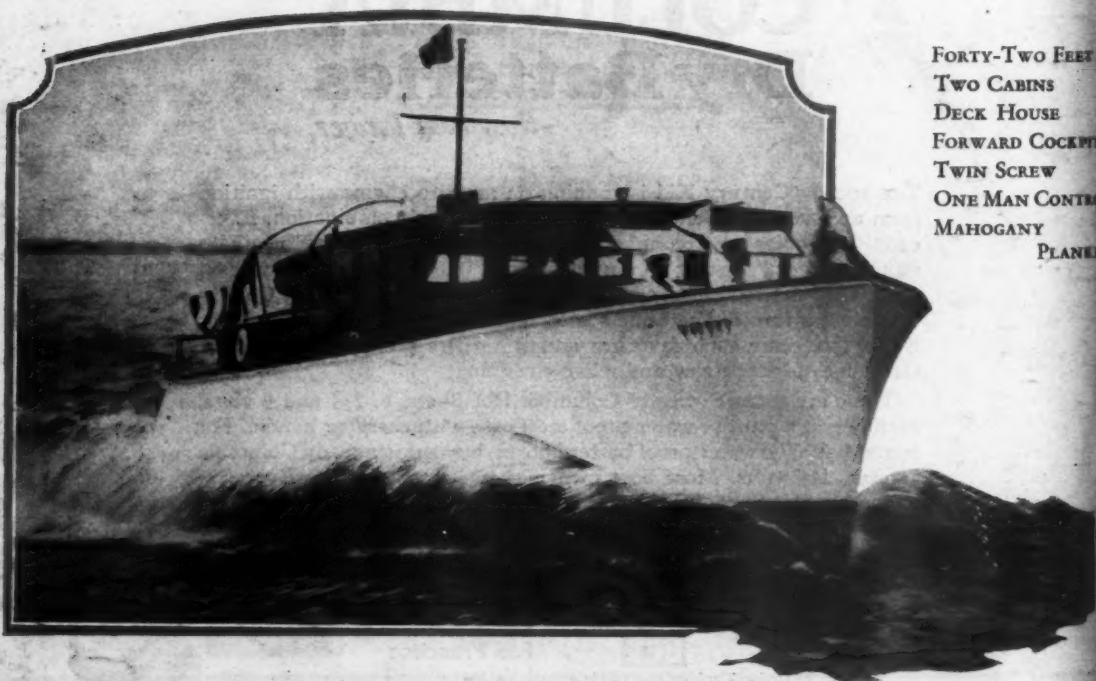
THE Fairform Flyer has its strongest appeal with yachtsmen who have had years of cruising experience, and who have owned more than one boat. Especially so because it introduces a new type of express cruiser, having many long desired features and refinements heretofore unobtainable in a standardized cruiser. Within its forty-two feet, and uniquely arranged, are a forward and after cabin, a large enclosed galley located in the stern, a perfectly balanced deck house and a spacious bow cockpit besides a lounging deck aft.

Fairform Flyer has a speed of better than twenty-five miles an hour with a pair of Kermaths. It is an exceptionally comfortable boat ideally designed for either off-shore cruising, commuting, fishing or for living afloat. It is an able, seaworthy and safe craft, extremely steady and free from pounding in rough water even at high speeds.

The Fairform Flyer lacks nothing in quality of materials or thoroughness of workmanship, yet it is reasonably priced.

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FORTY-TWO FEET
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